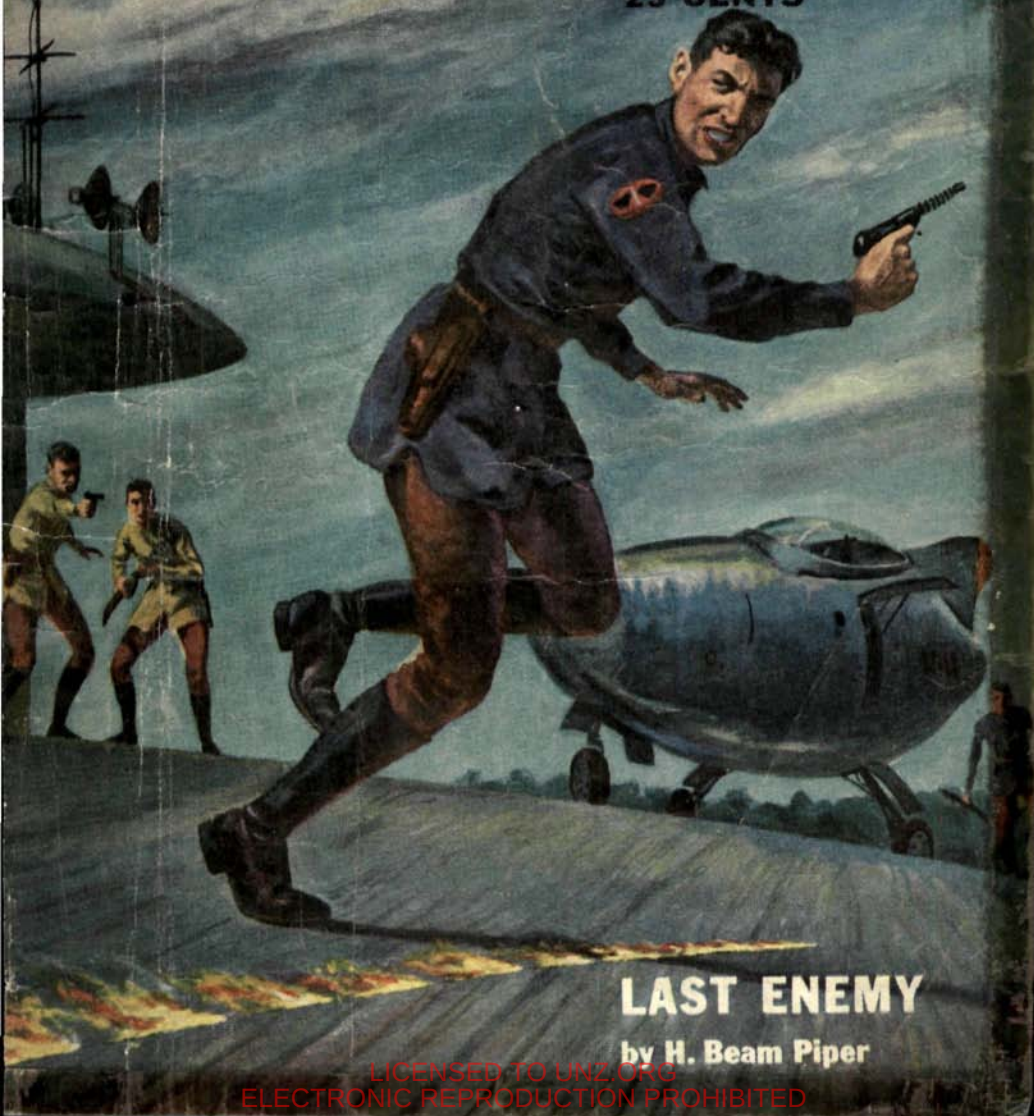


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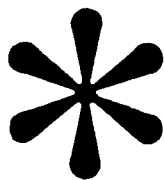
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LAST ENEMY

by H. Beam Piper

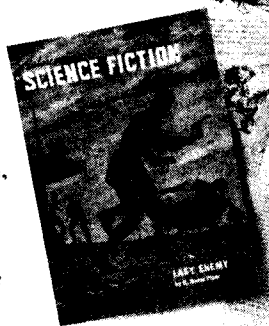
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Editor

JOHN W. CAMBELL, JR.

Assistant Editor

C. TARRANT

Adv. Mgr.

WALTER J. MC BRIDE

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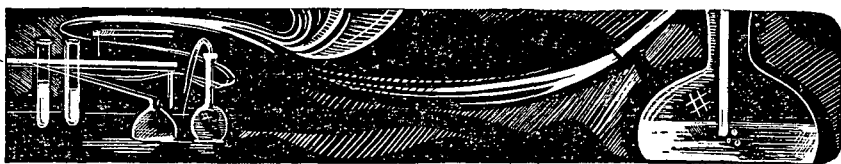
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PERFECT THINKING MECHANISM

In this issue is J. J. Coupling's article on building—rather, designing—a perfect thinking mechanism. Coupling wrote this before Hubbard's article on dianetics appeared, of course; Coupling's article is strictly from the cybernetics side. But I feel that Coupling, in this article, has made a major, basic contribution to the whole philosophy of thought and the mechanism of mind.

Hubbard's approach to the mind, as he specifically stated, was purely a matter of finding what worked in trying to straighten out minds—not an effort to find out the structure of the mind. Coupling's current article is, in essence, an effort to get some inkling of the sort of mechanism required to think—a totally different approach to the general field of mind and thought.

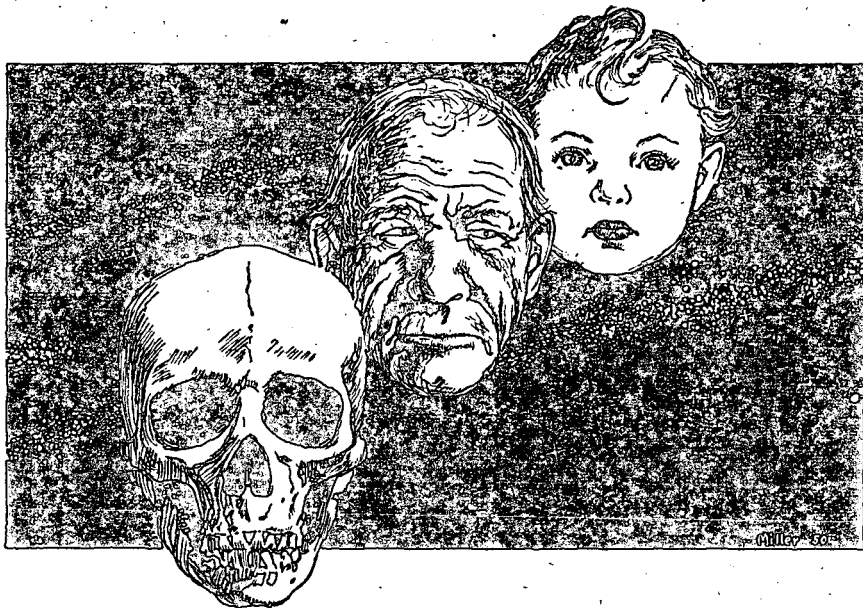
But some of the corollary of Coupling's highly important three basic rules for a perfect thinking mechanism are most suggestive. The per-

fect thinking mechanism, as Coupling shows, must *not* learn the first time, and *must* be able to ignore or forget a previously learned pattern of response.

Now while such a mind-mechanism leads to perfect thinking, it would, in an organism, lead very quickly to death. An animal equipped only with such a mind would have to be clawed by a lion five times or so before learning that lions are dangerous! The baby would have to burn itself five times before learning to dread fire.

Every school of psychology has maintained that there are at least two levels of mind in man, and that these levels of mind are in conflict—but none has given a really satisfactory, logical reason *why* there were two or more levels. Why a mechanism that led to conflict and inefficient operation had not been eliminated by the megayears of evolution. Coup-

(Continued on Page 161)



LAST ENEMY

BY H. BEAM PIPER

The last enemy was the toughest of all—and conquering him was in itself almost as dangerous as not conquering. For a strange pattern of beliefs can make assassination an honorable profession!

Illustrated by Miller

Along the U-shaped table, the subdued clatter of dinnerware and the buzz of conversation was dying out; the soft music that drifted down from the overhead sound outlets seemed louder as the competing noises diminished. The feast was

drawing to a close, and Dallona of Hadron-fidgeted nervously with the stem of her wineglass as last-moment doubts assailed her.

The old man at whose right she sat noticed, and reached out to lay his hand on hers.

"My dear, you're worried," he said softly. "You, of all people, shouldn't be, you know."

"The theory isn't complete," she replied. "And I could wish for more positive verification. I'd hate to think I'd got you into this—"

Garnon of Roxor laughed. "No, no!" he assured her. "I'd decided upon this long before you announced the results of your experiments. Ask Girzon; he'll bear me out."

"That's true," the young man who sat at Garnon's left said, leaning forward. "Father has meant to take this step for a long time. He was waiting until after the election, and then he decided to do it now, to give you an opportunity to make experimental use of it."

The man on Dallona's right added his voice. Like the others at the table, he was of medium stature, brown-skinned and dark-eyed, with a wide mouth, prominent cheekbones and a short, square jaw. Unlike the others, he was armed, with a knife and pistol on his belt, and on the breast of his black tunic he wore a scarlet oval patch on which a pair of black wings, with a tapering silver object between them had been superimposed.

"Yes, Lady Dallona; the Lord Garnon and I discussed this, oh, two years ago at the least. Really, I'm surprised that you seem to shrink from it, now. Of course, you're Venus-born, and customs there may be different, but with your scientific knowledge—"

"That may be the trouble, Dirzed,"

Dallona told him. "A scientist gets in the way of doubting, and one doubts one's own theories most of all."

"That's the scientific attitude, I'm told," Dirzed replied, smiling. "But somehow, I cannot think of you as a scientist." His eyes traveled over her in a way that would have made most women, scientists or otherwise, blush. It gave Dallona of Hadron a feeling of pleasure. Men often looked at her that way, especially here at Darsh. Novelty had something to do with it—her skin was considerably lighter than usual, and there was a pleasing oddness about the structure of her face. Her alleged Venusian origin was probably accepted as the explanation of that, as of so many other things.

As she was about to reply, a man in dark gray, one of the upper-servants who were accepted as social equals by the Akor-Neb nobles, approached the table. He nodded respectfully to Garnon of Roxor.

"I hate to seem to hurry things, sir, but the boy's ready. He's in a trance-state now," he reported, pointing to the pair of visiplates at the end of the room.

Both of the ten-foot-square plates were activated. One was a solid luminous white; on the other was the image of a boy of twelve or fourteen, seated at a big writing machine. Even allowing for the fact that the boy was in a hypnotic trance, there was an expression of idiocy on his loose-lipped, slack-

jawed face, a pervading dullness.

"One of our best sensitives," a man with a beard, several places down the table on Dallona's right, said. "You remember him, Dallona; he produced that communication from the discarnate Assassin, Sirzim. Normally, he's a low-grade imbecile, but in trance-state he's wonderful. And there can be no argument that the communications he produces originates in his own mind; he doesn't have mind enough, of his own, to operate that machine."

Garnon of Roxor rose to his feet, the others rising with him. He unfastened a jewel from the front of his tunic and handed it to Dallona.

"Here, my dear Lady Dallona; I want you to have this," he said. "It's been in the family of Roxor for six generations; but I know that you will appreciate and cherish it." He twisted a heavy ring from his left hand and gave it to his son. He unstrapped his wrist watch and passed it across the table to the gray-clad upper-servant. He gave a pocket case, containing writing tools, slide rule and magnifier, to the bearded man on the other side of Dallona. "Something you can use, Dr. Harposh," he said. Then he took a belt, with a knife and holstered pistol, from a servant who had brought it to him, and gave it to the man with the red badge. "And something for you, Dirzed. The pistol's by Farnor of Yand, and the knife was forged and tempered on Luna."

The man with the winged-bullet badge took the weapons, exclaiming

in appreciation. Then he removed his own belt and buckled on the gift.

"The pistol's fully loaded," Garnon told him.

Dirzed drew it and checked—a man of his craft took no statement about weapons without verification—then slipped it back into the holster.

"Shall I use it?" he asked.

"By all means; I'd had that in mind when I selected it for you."

Another man, to the left of Girzon, received a cigarette case and lighter. He and Garnon hooked fingers and clapped shoulders.

"Our views haven't been the same, Garnon," he said, "but I've always valued your friendship. I'm sorry you're doing this, now; I believe you'll be disappointed."

Garnon chuckled. "Would you care to make a small wager on that, Nirzav?" he asked. "You know what I'm putting up. If I'm proven right, will you accept the Volitionalist theory as verified?"

Nirzav chewed his mustache for a moment. "Yes, Garnon, I will." He pointed toward the blankly white screen. "If we get anything conclusive on that, I'll have no other choice."

"All right, friends," Garnon said to those around him. "Will you walk with me to the end of the room?"

Servants removed a section from the table in front of him, to allow him and a few others to pass through; the rest of the guests remained standing at the table, facing toward the

inside of the room. Garnon's son, Girzon, and the gray-mustached Nirzav of Shonna, walked on his left; Dallona of Hadron and Dr. Harnosh of Hosh on his right. The gray-clad upper-servant, and two or three ladies, and a nobleman with a small chin-beard, and several others, joined them; of those who had sat close to Garnon, only the man in the black tunic with the scarlet badge hung back. He stood still, by the break in the table, watching Garnon of Roxor walk away from him. Then Dirzed the Assassin drew the pistol he had lately received as a gift, hefted it in his hand, thumbing off the safety, and aimed at the back of Garnon's head.

They had nearly reached the end of the room when the pistol cracked. Dallona of Hadron started, almost as though the bullet had crashed into her own body, then caught herself and kept on walking. She closed her eyes and laid a hand on Dr. Harnosh's arm for guidance, concentrating her mind upon a single question. The others went on as though Garnon of Roxor were still walking among them.

"Look!" Harnosh of Hosh cried, pointing to the image in the visiplat ahead. "He's under control!"

They all stopped short, and Dirzed, holstering his pistol, hurried forward to join them. Behind, a couple of servants had approached with a stretcher and were gathering up the crumpled figure that had, a moment ago, been Garnon.

A change had come over the boy at

the writing machine. His eyes were still glazed with the stupor of the hypnotic trance, but the slack jaw had stiffened, and the loose mouth was compressed in a purposeful line. As they watched, his hands went out to the keyboard in front of him and began to move over it, and as they did, letters appeared on the white screen on the left.

Garnon of Roxor, discarnate, communicating, they read. The machine stopped for a moment, then began again. To Dallona of Hadron: The question you asked, after I discarnated, was: What was the last book I read, before the feast? While waiting for my valet to prepare my bath, I read the first ten verses of the fourth Canto of "Splendor of Space," by Larnov of Horka, in my bedroom. When the bath was ready, I marked the page with a strip of message tape, containing a message from the bailiff of my estate on the Shervva River, concerning a breakdown at the power plant, and laid the book on the ivory-inlaid table beside the big red chair.

Harnosh of Hosh looked at Dallona inquiringly; she nodded.

"I rejected the question I had in my mind, and substituted that one, after the shot," she said.

He turned quickly to the upper-servant. "Check on that, right away, Kirzon," he directed.

As the upper-servant hurried out, the writing machine started again.

And to my son, Girzon: I will not use your son, Garnon, as a re-incarnation-vehicle; I will remain

discarnate until he is grown and has a son of his own; if he has no male child, I will reincarnate in the first available male child of the family of Roxor, or of some family allied to us by marriage. In any case, I will communicate before reincarnating.

To Nirzav of Shonna: Ten days ago, when I dined at your home, I took a small knife and cut three notches, two close together and one a little apart from the others, on the under side of the table. As I remember, I sat two places down on the left. If you find them, you will know that I have won that wager that I spoke of a few minutes ago.

"I'll have my butler check on that, right away," Nirzav said. His eyes were wide with amazement, and he had begun to sweat; a man does not casually watch the beliefs of a lifetime invalidated in a few moments.

To Dirzed the Assassin: the machine continued. You have served me faithfully, in the last ten years, never more so than with the last shot you fired in my service. After you fired, the thought was in your mind that you would like to take service with the Lady Dallona of Hadron, whom you believe will need the protection of a member of the Society of Assassins. I advise you to do so, and I advise her to accept your offer. Her work, since she has come to Darsh, has not made her popular in some quarters. No doubt Nirzav of Shonna can bear me out on that.

"I won't betray things told me in confidence, or said at the Councils of the Statisticalists, but he's right,"

Nirzav said. "You need a good Assassin; and there are few better than Dirzed."

I see that this sensitive is growing weary, the letters on the screen spelled out. His body is not strong enough for prolonged communication. I bid you all farewell, for the time; I will communicate again. Good evening, my friends, and I thank you for your presence at the feast.

The boy, on the other screen, slumped back in his chair, his face relaxing into its customary expression of vacancy.

"Will you accept my offer of service, Lady Dallona?" Dirzed asked. "It's as Garnon said; you've made enemies."

Dallona smiled at him. "I've not been too deep in my work to know that. I'm glad to accept your offer, Dirzed."

Nirzav of Shonna had already turned away from the group and was hurrying from the room, to call his home for confirmation on the notches made on the underside of his dining table. As he went out the door, he almost collided with the upper-servant, who was rushing in with a book in his hand.

"Here it is," the latter exclaimed, holding up the book. "Lárnov's 'Splendor of Space,' just where he said it would be. I had a couple of servants with me as witnesses; I can call them in now, if you wish." He handed the book to Harnosh of Hosh. "See, a strip of message tape

in it, at the tenth verse of the Fourth Canto."

Nirzav of Shonna re-entered the room; he was chewing his mustache and muttering to himself. As he rejoined the group in front of the now dark visiplates, he raised his voice, addressing them all generally.

"My butler found the notches, just as the communication described," he said. "This settles it! Garnon, if you're where you can hear me, you've won. I can't believe in the Statisticalist doctrines after this, or in the political-program based upon them. I'll announce my change of attitude at the next meeting of the Executive Council, and resign my seat. I was elected by Statisticalist votes, and I cannot hold office as a Volitionalist."

"You'll need a couple of Assassins, too," the nobleman with the chin-beard told him. "Your former colleagues and fellow-party-members are regrettably given to the forcible discarnation of those who differ with them."

"I've never employed personal Assassins before," Nirzav replied, "but I think you're right. As soon as I get home, I'll call Assassins' Hall and make the necessary arrangements."

"Better do it now," Girzon of Roxor told him, lowering his voice. "There are over a hundred guests here, and I can't vouch for all of them. The Statisticalists would be sure to have a spy planted among them. My father was one of their most dangerous opponents, when he

was on the Council; they've always been afraid he'd come out of retirement and stand for re-election. They'd want to make sure he was really discarnate. And if that's the case, you can be sure your change of attitude is known to old Mirzark of Bashad by this time. He won't dare allow you to make a public renunciation of Statisticalism." He turned to the other nobleman. "Prince Jirzyn, why don't you call the Volitionist headquarters and have a couple of our Assassins sent here to escort Lord Nirzav home?"

"I'll do that immediately," Jirzyn of Starpha said. "It's as Lord Girzon says; we can be pretty sure there was a spy among the guests, and now that you've come over to our way of thinking, we're responsible for your safety."

He left the room to make the necessary visiphone call. Dallona, accompanied by Dirzed, returned to her place at the table, where she was joined by Harnosh of Hosh and some of the others.

"There's no question about the results," Harnosh was exulting. "I'll grant that the boy might have picked up some of that stuff telepathically from the carnate minds present here; even from the mind of Garnon, before he was discarnated. But he could not have picked up enough data, in that way, to make a connected and coherent communication. It takes a sensitive with a powerful mind of his own to practice telesthesia, and that boy's almost an idiot." He turned to Dallona. "You

asked a question, mentally, after Garnon was discarnate, and got an answer that could have been contained only in Garnon's mind. I think it's conclusive proof that the discarnate Garnon was fully conscious and communicating."

"Dirzed also asked a question, mentally, after the discarnation, and got an answer. Dr. Harnosh, we can state positively that the surviving individuality is fully conscious in the discarnate state, is telepathically sensitive, and is capable of telepathic communication with other minds," Dallona agreed. "And in view of our earlier work with memory-recalls, we're justified in stating positively that the individual is capable of exercising choice in reincarnation vehicles."

"My father had been considering voluntary discarnation for a long time," Girzon of Roxor said. "Ever since the discarnation of my mother. He deferred that step because he was unwilling to deprive the Volitionalist Party of his support. Now it would seem that he has done more to combat Statisticalism by discarnating than he ever did in his carnate existence."

"I don't know, Girzon," Jirzyn of Starpha said, as he joined the group. "The Statisticalists will denounce the whole thing as a pre-arranged fraud. And if they can discarnate the Lady Dallona before she can record her testimony under truth hypnosis or on a lie detector, we're no better off than we were before. Dirzed, you have a great responsi-

bility in guarding the Lady Dallona; some extraordinary security precautions will be needed."

In his office, in the First Level city of Dhergabar, Tortha Karf, Chief of Paratime Police, leaned forward in his chair to hold his lighter for his special assistant, Verkan Vall, then lit his own cigarette. He was a man of middle age—his three hundredth birthday was only a decade or so off—and he had begun to acquire a double chin and a bulge at his waistline. His hair, once black, had turned a uniform iron-gray and was beginning to thin in front.

"What do you know about the Second Level Akor-Neb Sector, Vall?" he inquired. "Ever work in that paratime-area?"

Verkan Vall's handsome features became even more immobile than usual as he mentally pronounced the verbal trigger symbols which should bring hypnotically-acquired knowledge into his conscious mind. Then he shook his head.

"Must be a singularly well-behaved sector, sir," he said. "Or else we've been lucky, so far. I never was on an Akor-Neb operation; don't even have a hypno-mech for that sector. All I know is from general reading."

"Like all the Second Level, its time-lines descend from the probability of one or more shiploads of colonists having come to Terra from Mars about seventy-five to a hundred thousand years ago, and then having been cut off from the home

planet and forced to develop a civilization of their own here. The Akor-Neb civilization is of a fairly high culture-order, even for Second Level. An atomic-power, interplanetary culture; gravity-counteraction, direct conversion of nuclear energy to electrical power, that sort of thing. We buy fine synthetic plastics and fabrics from them." He fingered the material of his smartly-cut green police uniform. "I think this cloth is Akor-Neb. We sell a lot of Venusian *zerfa*-leaf; they smoke it, straight and mixed with tobacco. They have a single System-wide government, a single race, and a universal language. They're a dark-brown race, which evolved in its present form about fifty thousand years ago; the present civilization is about ten thousand years old, developed out of the wreckage of several earlier civilizations which decayed or fell through wars, exhaustion of resources; et cetera. They have legends, maybe historical records, of their extraterrestrial origin."

Tortha Karf nodded. "Pretty good, for consciously acquired knowledge," he commented. "Well, our luck's run out, on that sector; we have troubles there, now. I want you to go iron them out. I know, you've been going pretty hard, lately—that nighthound business, on the Fourth Level Europeo-American Sector, wasn't any picnic. But the fact is that a lot of my ordinary and deputy assistants have a little too much regard for the alleged sanctity of human life, and this is something

that may need some pretty drastic action."

"Some of our people getting out of line?" Varkan Vall asked.

"Well, the data isn't too complete, but one of our people has run into trouble on that sector, and needs rescuing—a psychic-science researcher, a young lady named Hadrön Dalla. I believe you know her, don't you?" Tortha Karf asked innocently.

"Slightly," Vergan Vall deadpanned. "I enjoyed a brief but rather hectic companionate-marriage with her, about twenty years ago. What sort of a jam's little Dalla got herself into, now?"

"Well, frankly, we don't know. I hope she's still alive, but I'm not unduly optimistic. It seems that about a year ago, Dr. Hadrön transposed to the Second Level, to study alleged proof of reincarnation which the Akor-Neb people were reported to possess. She went to Gindrabar, on Venus, and transposed to the Second Paratime Level, to a station maintained by Outtime Import & Export Trading Corporation—a *zerfa* plantation just east of the High Ridge country. There she assumed an identity as the daughter of a planter, and took the name of Dallona of Hadron. Parenthetically, all Akor-Neb family-names are prepositional; family-names were originally place names. I believe that ancient Akor-Neb marital relations were too complicated to permit exact establishment of paternity. And all Akor-Neb men's personal names have *-irs-* or

-arn- inserted in the middle, and women's names end in -itra- or -ona. You could call yourself Virzal of Verkan, for instance.

"Anyhow, she made the Second Level Venus-Terra trip on a regular passenger liner, and landed at the Akor-Neb city of Ghamma, on the upper Nile. There she established contact with the Outtime Trading Corporation representative, Zortan Brend, locally known as Brarnend of Zorda. He couldn't call himself Brarnend of Zortan—in the Akor-Neb language, *zortan* is a particularly nasty dirty-word. Hadron Dalla spent a few weeks at his residence, briefing herself on local conditions. Then she went to the capital city, Darsh, in eastern Europe, and enrolled as a student at something called the Independent Institute for Reincarnation Research, having secured a letter of introduction to its director, a Dr. Harnosh of Hosh.

"Almost at once, she began sending in reports to her home organization, the Rhogom Memorial Foundation of Psychic Science, here at Dhergabar, through Zortan Brend. The people there were wildly enthusiastic. I don't have more than the average intelligent—I hope—layman's knowledge of psychics, but Dr. Volzar Darv, the director of Rhogom Foundation, tells me that even in the present incomplete form, her reports have opened whole new horizons in the science. It seems that these Akor-Neb people have actually demonstrated, as a scientific fact, that the human individuality rein-



carnates after physical death—that your personality, and mine, have existed, as such, for ages, and will exist for ages to come. More, they have means of recovering, from almost anybody, memories of past reincarnations.

“Well, after about a month, the people at this Reincarnation Institute realized that this Dallona of Hadron wasn’t any ordinary student. She probably had trouble keeping down to the local level of psychic knowledge. So, as soon as she’d learned their techniques, she was allowed to undertake experimental work of her own. I imagine she let herself out on that; as soon as she’d mastered the standard Akor-Neb methods of recovering memories of past reincarnations, she began refining and developing them more than the local yokels had been able to do in the past thousand years. I can’t tell you just what she did, because I don’t know the subject, but she must have lit things up properly. She got quite a lot of local publicity; not only scientific journals, but general newscasts.

“Then, four days ago, she disappeared, and her disappearance seems to have been coincident with an unsuccessful attempt on her life. We don’t know as much about this as we should; all we have is Zortan Brend’s account.

“It seems that on the evening of her disappearance, she had been attending the voluntary discarnation feast—suicide party—of a prominent nobleman named Garnon of Roxor.

Evidently when the Akor-Neb people get tired of their current reincarnation they invite in their friends, throw a big party, and then do themselves in in an atmosphere of general conviviality. Frequently they take poison or inhale lethal gas; this fellow had his personal trigger man shoot him through the head. Dalla was one of the guests of honor, along with this Harnosh of Hosh. They’d made rather elaborate preparations, and after the shooting they got a detailed and apparently authentic spirit-communication from the late Garnon. The voluntary discarnation was just a routine social event, it seems, but the communication caused quite an uproar, and rated top place on the System-wide newscasts, and started a storm of controversy.

“After the shooting and the communication, Dalla took the officiating gun artist, one Dirzed, into her own service. This Dirzed was spoken of as a generally respected member of something called the Society of Assassins, and that’ll give you an idea of what things are like on that sector, and why I don’t want to send anybody who might develop trigger-finger cramp at the wrong moment. She and Dirzed left the home of the gentleman who had just had himself discarnated, presumably for Dalla’s apartment, about a hundred miles away. That’s the last that’s been heard of either of them.

“This attempt on Dalla’s life occurred while the pre-mortem revels were still going on. She lived in a six-room apartment, with three

servants, on one of the upper floors of a three-thousand-foot tower — Akor-Neb cities are built vertically, with considerable interval between units—and while she was at this feast, a package was delivered at the apartment, ostensibly from the Reincarnation Institute and made up to look as though it contained record tapes. One of the servants accepted it from a service employee of the apartments. The next morning, a little before noon, Dr. Harnosh of Hosh called her on the visiphone and got no answer; he then called the apartment manager, who entered the apartment. He found all three of the servants dead, from a lethal-gas bomb which had exploded when one of them had opened this package. However, Hadron Dalla had never returned to the apartment, the night before."

Verkan Vall was sitting motionless, his face expressionless as he ran Tortha Karf's narrative through the intricate semantic and psychological processes of the First Level mentality. The fact that Hadron Dalla had been a former wife of his had been relegated to one corner of his consciousness and contained there; it was not a fact that would, at the moment, contribute to the problem or to his treatment of it.

"The package was delivered while she was at this suicide party," he considered. "It must, therefore, have been sent by somebody who either did not know she would be out of the apartment, or who did not expect it

to function until after her return. On the other hand, if her disappearance was due to hostile action, it was the work of somebody who knew she was at the feast and did not want her to reach her apartment again. This would seem to exclude the sender of the package bomb."

Tortha Karf nodded. He had reached that conclusion, himself.

"Thus," Verkan Vall continued, "if her disappearance was the work of an enemy, she must have two enemies, each working in ignorance of the other's plans."

"What do you think she did to provoke such enmity?"

"Well, of course, it just might be that Dalla's normally complicated love-life had got a little more complicated than usual and short-circuited on her," Verkan Vall said, out of the fullness of personal knowledge, "but I doubt that, at the moment. I would think that this affair has political implications."

"So?" Tortha Karf had not thought of politics as an explanation. He waited for Verkan Vall to elaborate.

"Don't you see, chief?" the special assistant asked. "We find a belief in reincarnation on many time-lines, as a religious doctrine, but these people accept it as a scientific fact. Such acceptance would carry much more conviction; it would influence a people's entire thinking. We see it reflected in their disregard for death—suicide as a social function, this Society of Assassins, and the like. It would naturally color their political

thinking, because politics is nothing but common action to secure more favorable living conditions, and to these people, the term 'living conditions' includes not only the present life, but also an indefinite number of future lives as well. I find this title, 'Independent' Institute, suggestive. Independent of what? Possibly of partisan affiliation."

"But wouldn't these people be grateful to her for her new discoveries, which would enable them to plan their future reincarnations more intelligently?" Tortha Karf asked.

"Oh, chief!" Verkan Vall reproached. "You know better than that! How many times have our people got in trouble on other timelines because they divulged some useful scientific fact that conflicted with the locally revered nonsense? You show me ten men who cherish some religious doctrine or political ideology, and I'll show you nine men whose minds are utterly impervious to any factual evidence which contradicts their beliefs, and who regard the producer of such evidence as a criminal who ought to be suppressed. For instance, on the Fourth Level Europo-American Sector, where I was just working, there is a political sect, the Communists, who, in the territory under their control, forbid the teaching of certain well-established facts of genetics and heredity, because those facts do not fit the world-picture demanded by their political doctrines. And on the same sector, a religious sect recently tried, in some sections suc-

cessfully, to outlaw the teaching of evolution by natural selection."

Tortha Karf nodded. "I remember some stories my grandfather told me, about his narrow escapes from an organization called the Holy Inquisition, when he was a paratime trader on the Fourth Level, about four hundred years ago. I believe that thing's still operating, on the Europo-American Sector, under the name of the NKVD. So you think Dalla may have proven something that conflicted with local reincarnation theories, and somebody who had a vested interest in maintaining those theories is trying to stop her?"

"You spoke of a controversy over the communication alleged to have originated with this voluntarily discarnated nobleman. That would suggest a difference of opinion on the manner of nature of reincarnation or the discarnate state. This difference may mark the dividing line between the different political parties. Now, to get to this Darsh place, do I have to go to Venus, as Dalla did?"

"No. The Outtime Trading Corporation has transposition facilities at Ravvanan, on the Nile, which is spatially co-existent with the city of Ghamma on the Akor-Neb Sector, where Zortan Brend is. You transpose through there, and Zortan Brend will furnish you transportation to Darsh. It'll take you about two days, here, getting your hypno-mech indoctrinations and having your skin pigmented, and your hair turned black. I'll notify Zortan Brend at once that you're coming

through. Is there anything special you'll want?"

"Why, I'll want an abstract of the reports Dalla sent back to Rhogom Foundation. It's likely that there is some clue among them as to whom her discoveries may have antagonized. I'm going to be a Venusian *zerfa*-planter, a friend* of her father's; I'll want full hypno-mech indoctrination to enable me to play that part. And I'll want to familiarize myself with Akor-Neb weapons and combat techniques. I think that will be all, chief."

The last of the tall city-units of Ghamma were sliding out of sight as the ship passed over them—shaft-like buildings that rose two or three thousand feet above the ground in clumps of three or four or six, one at each corner of the landing stages set in series between them. Each of these units stood in the middle of a wooded park some five miles square; no unit was much more or less than twenty miles from its nearest neighbor, and the land between was the uniform golden-brown of ripening grain, crisscrossed with the threads of irrigation canals and dotted here and there with studdy farm-village buildings and tall, stacklike granaries. There were a few other ships in the air at the fifty-thousand-foot level; and below, swarms of small air-boats darted back and forth on different levels, depending upon speed and direction. Far ahead, to the northeast, was the shimmer of the Red Sea and the hazy bulk of Asia

Minor beyond.

Verkan Vall—the Lord Virzal of Verkan, temporarily—stood at the glass front of the observation deck, looking down. He was a different Verkan Vall from the man who had talked with Tortha Karf in the latter's office, two days before. The First Level cosmeticists had worked miracles upon him with their art. His skin was a soft chocolate-brown, now; his hair was jet-black, and so were his eyes. And in his subconscious mind, instantly available to consciousness, was a vast body of knowledge about conditions on the Akor-Neb sector, as well as a complete command of the local language, all hypnotically acquired.

He knew that he was looking down upon one of the minor provincial cities of a very respectably advanced civilization. A civilization which built its cities vertically, since it had learned to counteract gravitation. A civilization which still depended upon natural cereals for food, but one which had learned to make the most efficient use of its soil. The network of dams and irrigation canals which he saw was as good as anything on his own paratime level. The wide dispersal of buildings, he knew, was a heritage of a series of disastrous atomic wars of several thousand years before; the Akor-Neb people had come to love the wide inter-vistas of open country and forest, and had continued to scatter their buildings, even after the necessity had passed. But the slim, towering buildings could only have been

reared by a people who had banished nationalism and, with it, the threat of total war. He contrasted them with the ground-hugging dome cities of the Khiftan civilization, only a few thousand parayears distant.

Three men came out of the lounge behind him and joined him. One was, like himself, a disguised paratimer from the First Level—the Outtime Export and Import man, Zortan Brend, here known as Brarnend of Zorda. The other two were Akor-Neb people, and both wore the black tunics and the winged-bullet badges of the Society of Assassins. Unlike Verkan Vall and Zortan Brend, who wore shoulder holsters under their short tunics, the Assassins openly displayed pistols and knives on their belts.

"We heard that you were coming two days ago, Lord Virzal," Zortan Brend said. "We delayed the take-off of this ship, so that you could travel to Darsh as inconspicuously as possible. I also booked a suite for you at the Solar Hotel, at Darsh. And these are your Assassins—Olirzon, and Marnik."

Verkan Vall hooked fingers and clapped shoulders with them.

"Virzal of Verkan," he identified himself. "I am satisfied to intrust myself to you."

"We'll do our best for you, Lord Virzal," the older of the pair, Olirzon, said. He hesitated for a moment, then continued: "Understand, Lord Virzal, I only ask for information useful in serving and protecting you.

But is this of the Lady Dallona a political matter?"

"Not from our side," Verkan Vall told him. "The Lady Dallona is a scientist, entirely nonpolitical. The Honorable Brarnend is a business man; he doesn't meddle with politics as long as the politicians leave him alone. And I'm a planter on Venus; I have enough troubles, with the natives, and the weather, and blue-rot in the *zerfa* plants, and poison roaches, and javelin bugs, without getting into politics. But psychic science is inextricably mixed with politics, and the Lady Dallona's work had evidently tended to discredit the theory of Statistical Reincarnation."

"Do you often make understatement like that, Lord Virzal?" Olirzon grinned. "In the last six months, she's knocked Statistical Reincarnation to splinters."

"Well, I'm not a psychic scientist, and as I said, I don't know much about Terran politics," Verkan Vall replied. "I know that the Statisticalists favor complete socialization and political control of the whole economy, because they want everybody to have the same opportunities in every reincarnation. And the Volitionalists believe that everybody reincarnates as he pleases, and so they favor continuance of the present system of private ownership of wealth and private profit under a system of free competition. And that's about all I do know. Naturally, as a landowner and the holder of a title of nobility, I'm a Volitionalist in politics,

but the socialization issue isn't important on Venus. There is still too much unseated land there, and too many personal opportunities, to make socialism attractive to anybody."

"Well, that's about it," Zortan Brend told him. "I'm not enough of a psychicist to know what the Lady Dallona's been doing, but she's knocked the theoretical basis from under Statistical Reincarnation, and that's the basis, in turn, of Statistical Socialism. I think we'll find that the Statisticalist Party is responsible for whatever happened to her."

Marnik, the younger of the two Assassins, hesitated for a moment; then addressed Verkan Vall:-

"Lord Virzal, I know none of the personalities involved in this matter, and I speak without wishing to give offense, but is it not possible that the Lady Dallona and the Assassin Dirzed may have gone somewhere together voluntarily? I have met Dirzed, and he has many qualities which women find attractive, and he is by no means indifferent to the opposite sex. You understand, Lord Virzal—"

"I understand all too perfectly, Marnik," Verkan Vall replied, out of the fullness of experience. "The Lady Dallona has had affairs with a number of men, myself among them. But under the circumstances, I find that explanation unthinkable."

Marnik looked at him in open skepticism. Evidently, in his book, where an attractive man and a beautiful woman were concerned, that

explanation was never unthinkable.

"The Lady Dallona is a scientist," Verkan Vall elaborated. "She is not above diverting herself with love affairs, but that's all they are—a not too important form of diversion. And, if you recall, she had just participated in a most significant experiment; you can be sure that she had other things on her mind at the time than pleasure jaunts with good-looking Assassins."

The ship was passing around the Caucasus Mountains, with the Caspian Sea in sight ahead, when several of the crew appeared on the observation deck and began preparing the shielding to protect the deck from gunfire. Zortan Brend inquired of the petty officer in charge of the work as to the necessity.

"We've been getting reports of trouble at Darsh, sir," the man said. "Newscast bulletins every couple of minutes; rioting in different parts of the city. Started yesterday afternoon, when a couple of Statisticalist members of the Executive Council resigned and went over to the Volitionalists. Lord Nirzav of Shonna, the only nobelman of any importance in the Statisticalist Party, was one of them; he was shot immediately afterward, while leaving the Council Chambers, along with a couple of Assassins who were with him. Some people in an airboat sprayed them with a machine rifle as they came out onto the landing stage."

The two Assassins exclaimed in horrified anger over this.

"That wasn't the work of members of the Society of Assassins!" Olirzon declared. "Even after he'd resigned, the Lord Nirzav was still immune till he left the Government Building. There's too blasted much illegal assassination going on!"

"What happened next?" Verkan Vall wanted to know.

"About what you'd expect, sir. The Volitionalists weren't going to take that quietly. In the past eighteen hours, four prominent Statisticalists were forcibly disincarnated, and there was even a fight in Mirzark of Bashad's house, when Volitionalist Assassins broke in; three of them and four of Mirzark's Assassins were disincarnated."

"You know, something is going to have to be done about that, too," Olirzon said to Marnik. "It's getting to a point where these political faction fights are being carried on entirely between members of the Society. In Ghamma alone, last year, thirty or forty of our members were disincarnated that way."

"Plug in a newscast visiplat, Karnil," Zortan Brend told the petty officer. "Let's see what's going on in Darsh now."

In Darsh, it seemed, an uneasy peace was being established. Verkan Vall watched heavily-armed airboats and light combat ships patrolling among the high towers of the city. He saw a couple of minor riots being broken up by the blue-uniformed Constabulary, with considerable shooting and a ruthless disregard for who might get shot. It wasn't exact-

ly the sort of policing that would have been tolerated in the First Level Civil Order Section, but it seemed to suit Akor-Neb conditions. And he listened to a series of angry recriminations and contradictory statements by different politicians, all of whom blamed the disorders on their opponents. The Volitionalists spoke of the Statisticalists as "insane criminals" and "underminers of social stability," and the Statisticalists called the Volitionalists "reactionary criminals" and "enemies of social progress." Politicians, he had observed, differed little in their vocabularies from one time-line to another.

This kept up all the while the ship was passing over the Caspian Sea; as they were turning up the Volga valley, one of the ship's officers came down from the control deck, above.

"We're coming into Darsh, now," he said, and as Verkan Vall turned from the visiplat to the forward windows, he could see the white and pastel-tinted towers of the city rising above the hardwood forests that covered the whole Volga basin on this sector. "Your luggage has been put into the airboat, Lord Virzal and Honorable Assassins, and it's ready for launching whenever you are." The officer glanced at his watch. "We dock at Commercial Center in twenty minutes; we'll be passing the Solar Hotel in ten."

They all rose, and Verkan Vall hooked fingers and clapped shoulders with Zortan Brend.

"Good luck, Lord Virzal," the

latter said. "I hope you find the Lady Dallona safe and carnate. If you need help, I'll be at Mercantile House for the next day or so; if you get back to Ghamma before I do, you know who to ask for there."

A number of assassins loitered in the hallways and offices of the Independent Institute of Reincarnation Research when Verkan Vall, accompanied by Marnik, called there that afternoon. Some of them carried submachine-guns or sleep-gas projectors, and they were stopping people and questioning them. Marnik needed only to give them a quick gesture and the words, "Assassins' Truce," and he and his client were allowed to pass. They entered a lifter tube and floated up to the office of Dr. Harnosh of Hosh, with whom Verkan Vall had made an appointment.

"I'm sorry, Lord Virzal," the director of the Institute told him, "but I have no idea what has befallen the Lady Dallona, or even if she is still carnate. I am quite worried; I admired her extremely, both as an individual and as a scientist. I do hope she hasn't been discarnated; that would be a serious blow to science. It is fortunate that she accomplished as much as she did, while she was with us."

"You think she is no longer carnate, then?"

"I'm afraid so. The political effects of her discoveries—" Harnosh of Hosh shrugged sadly. "She was devoted, to a rare degree, to her work.

I am sure that nothing but her discarnation could have taken her away from us, at this time, with so many important experiments still uncompleted."

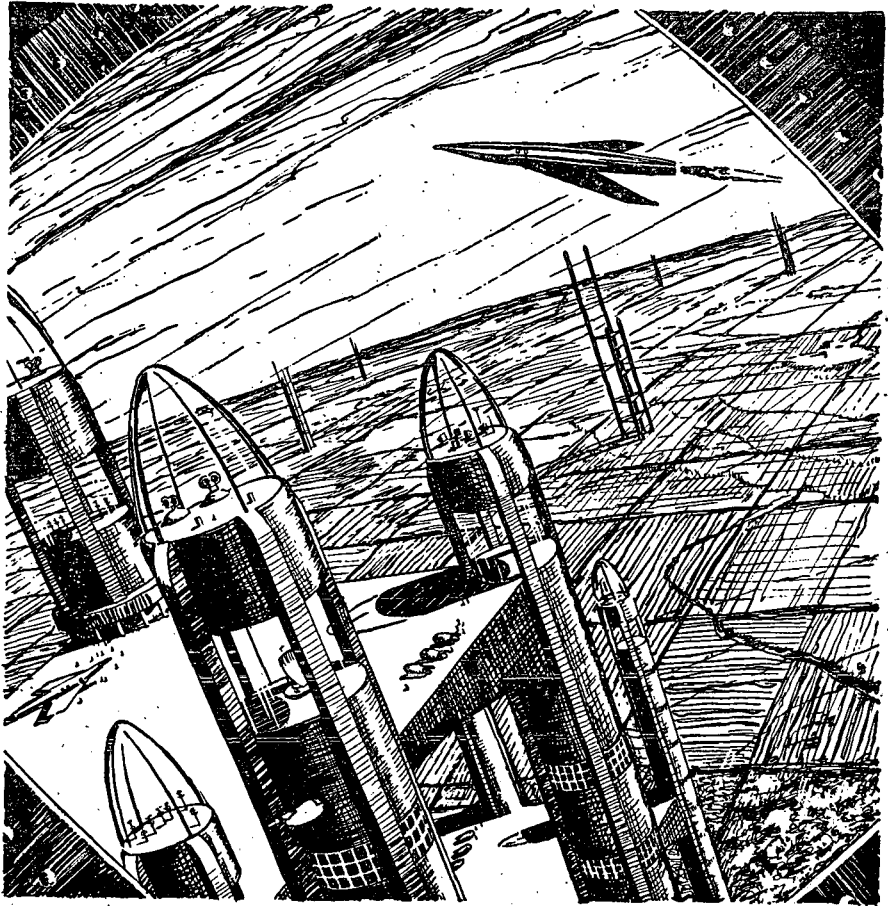
Marnik nodded to Verkan Vall, as much as to say: "You were right."

"Well, I intend acting upon the assumption that she is still carnate and in need of help, until I am positive to the contrary," Verkan Vall said. "And in the latter case, I intend finding out who discarnated her, and send him to apologize for it in person. People don't forcibly discarnate my friends with impunity."

"Sound attitude," Dr. Harnosh commented. "There's certainly no positive evidence that she isn't still carnate. I'll gladly give you all the assistance I can, if you'll only tell me what you want."

"Well, in the first place," Verkan Vall began, "just what sort of work was she doing?" He already knew the answer to that, from the reports she had sent back to the First Level, but he wanted to hear Dr. Harnosh's version. "And what, exactly, are the political effects you mentioned? Understand, Dr. Harnosh, I am really quite ignorant of any scientific subject unrelated to *zerfa* culture, and equally so of Terran politics. Politics, on Venus, is mainly a question of who gets how much graft out of what."

Dr. Harnosh smiled; evidently he had heard about Venusian politics. "Ah, yes, of course. But you are fa-



miliar with the main differences between Statistical and Volitional reincarnation theories?"

"In a general way. The Volitionalists hold that the discarnate individuality is fully conscious, and is capable of something analogous to sense-perception, and is also capable of exercising choice in the matter of reincarnation vehicles, and can rein-

carnate or remain in the discarnate state as it chooses. They also believe that discarnate individualities can communicate with one another, and with at least some carnate individualities, by telepathy," he said. "The Statisticalists deny all this; their opinion is that the discarnate individuality is in a more or less somnambulistic state, that it is drawn by

a process akin to tropism to the nearest available reincarnation vehicle, and that it must reincarnate in and only in that vehicle. They are labeled Statisticalists because they believe that the process of reincarnation is purely at random, or governed by unknown and uncontrollable causes, and is unpredictable except as to aggregates."

"That's a fairly good generalized summary," Dr. Harnosh of Hosh grudging, unwilling to give a mere layman too much credit. He dipped a spoon into a tobacco humidor, dusted the tobacco lightly with dried *zerfa*, and rammed it into his pipe. "You must understand that our modern Statisticalists are the intellectual heirs of those ancient materialistic thinkers who denied the possibility of any discarnate existence, or of any extraphysical mind, or even of extrasensory perception. Since all these things have been demonstrated to be facts, the materialistic dogma has been broadened to include them, but always strictly within the frame of materialism.

"We have proven, for instance, that the human individuality can exist in a discarnate state, and that it reincarnates into the body of an infant, shortly after birth. But the Statisticalists cannot accept the idea of discarnate consciousness, since they conceive of consciousness purely as a function of the physical brain. So they postulate an unconscious discarnate personality, or, as you put it, one in a somnambulistic state. They

have to concede memory to this discarnate personality, since it was by recovery of memories of previous reincarnations that discarnate existence and reincarnation were proven to be facts. So they picture the discarnate individuality as a material object, or physical event, of negligible but actual mass, in which an indefinite number of memories can be stored as electronic charges. And they picture it as being drawn irresistibly to the body of the nearest non-incarnated infant. Curiously enough, the reincarnation vehicle chosen is almost always of the same sex as the vehicle of the previous reincarnation, the exceptions being cases of persons who had a previous history of psychological sex-inversion."

Dr. Harnosh remembered the unlighted pipe in his hand, thrust it into his mouth, and lit it. For a moment, he sat with it jutting out of his black beard, until it was drawing to his satisfaction. "This belief in immediate reincarnation leads the Statisticalists, when they fight duels or perform voluntary discarnation, to do so in the neighborhood of maternity hospitals," he added. "I know, personally, of one reincarnation memory-recall, in which the subject, a Statisticalist, voluntarily discarnated by lethal-gas inhaler, in a private room at one of our local maternity hospitals, and reincarnated twenty years later in the city of Jeddul, three thousand miles away." The square black beard jiggled as the scientist laughed.

"Now, as to the political implications of these contradictory theories: Since the Statisticalists believe that they will reincarnate entirely at random, their aim is to create an utterly classless social and economic order, in which, theoretically, each individuality will reincarnate into a condition of equality with everybody else. Their political program, therefore, is one of complete socialization of all means of production and distribution; abolition of hereditary titles and inherited wealth—eventually, all private wealth—and total government control of all economic, social and cultural activities. Of course," Dr. Harnosh apologized, "politics isn't my subject; I wouldn't presume to judge how that would function in practice."

"I would," Verkan Vall said shortly, thinking of all the different time-lines on which he had seen systems like that in operation. "You wouldn't like it, doctor. And the Volitionalists?"

"Well; since they believe that they are able to choose the circumstances of their next reincarnations for themselves, they are the party of the *status quo*. Naturally, almost all the nobles, almost all the wealthy trading and manufacturing families, and almost all professional people, are Volitionalists; most of the workers and peasants are Statisticalists. Or, at least, they were, for the most part, before we began announcing the results of the Lady Dallona's experimental work."

"Ah; now we come to it," Verkan

Vall said as the story clarified.

"Yes. In somewhat oversimplified form, the situation is rather like this," Dr. Harnosh of Hosh said. "The Lady Dallona introduced a number of refinements and some outright innovations into our technique of recovering memories of past reincarnations. Previously, it was necessary to keep the subject in an hypnotic trance, during which he or she would narrate what was remembered of past reincarnations, and this would be recorded. On emerging from the trance, the subject would remember nothing; the tape-recording would be all that would be left. But the Lady Dallona devised a technique by which these memories would remain in what might be called the fore part of the subject's subconscious mind, so that they could be brought to the level of consciousness at will. More, she was able to recover memories of past disincarnate existences, something we had never been able to do heretofore." Dr. Harnosh shook his head. "And to think, when I first met her, I thought that she was just another sensation-seeking young lady of wealth, and was almost about to refuse her enrollment!"

He wasn't the only one whom little Dalla had surprised, Verkan Vall thought. At least, he had been pleasantly surprised.

"You see, this entirely disproves the Statistical Theory of Reincarnation. For example, we got a fine set of memory-recalls from one subject,

for four previous reincarnations and four intercarinations. In the first of these, the subject had been a peasant on the estate of a wealthy noble. Unlike most of his fellows, who reincarnated into other peasant families almost immediately after discarnation, this man waited for fifty years in the discarnate state for an opportunity to reincarnate as the son of an over-servant. In his next reincarnation, he was the son of a technician, and received a technical education; he became a physics researcher. For his next reincarnation, he chose the son of a nobleman by a concubine as his vehicle; in his present reincarnation, he is a member of a wealthy manufacturing family, and married into a family of the nobility. In five reincarnations, he has climbed from the lowest to the next-to-highest rung of the social ladder. Few individuals of the class from whence he began this ascent possess so much persistence or determination. Then, of course, there was the case of Lord Garnon of Roxor."

He went on to describe the last experiment in which Hadron Dalla had participated.

"Well, that all sounds pretty conclusive," Verkan-Vall commented. "I take it the leaders of the Volitionalist Party here are pleased with the result of the Lady Dallona's work?"

"Pleased? My dear Lord Virzal, they're fairly bursting with glee over it!" Harnosh of Hosh declared. "As I pointed out, the Statisticalist program of socialization is based entire-

ly on the proposition that no one can choose the circumstances of his next reincarnation, and that's been demonstrated to be utter nonsense. Until the Lady Dallona's discoveries were announced, they were the dominant party, controlling a majority of the seats in Parliament and on the Executive Council. Only the Constitution kept them from enacting their entire socialization program long ago, and they were about to legislate constitutional changes which would remove that barrier. They had expected to be able to do so after the forthcoming general elections. But now, social inequality has become desirable; it gives people something to look forward to in the next reincarnation. Instead of wanting to abolish wealth and privilege and nobility, the proletariat want to reincarnate into them." Harnosh of Hosh laughed happily. "So you can see how furious the Statisticalist Party organization is!"

"There's a catch to this, somewhere," Marnik the Assassin, speaking for the first time, declared. "They can't all reincarnate as princes, there aren't enough vacancies to go 'round. And no noble is going to reincarnate as a tractor driver to make room for a tractor driver who wants to reincarnate as a noble."

"That's correct," Dr. Harnosh replied. "There is a catch to it; a catch most people would never admit, even to themselves. Very few individuals possess the will power, the intelligence or the capacity for mental ef-

fort displayed by the subject of the case. I just quoted. The average man's interests are almost entirely on the physical side; he actually finds mental effort painful, and makes as little of it as possible. And that is the only sort of effort a discarnate individuality can exert. So, unable to endure the fifty or so years needed to make a really good reincarnation, he reincarnates in a year or so, out of pure boredom, into the first vehicle he can find, usually one nobody else wants." Dr. Harnosh dug out the heel of his pipe and blew through the stem. "But nobody will admit his own mental inferiority, even to himself. Now, every machine operator and field hand on the planet thinks he can reincarnate as a prince or a millionaire. Politics isn't my subject, but I'm willing to bet that since Statistical Reincarnation is an exploded psychic theory, Statistical Socialism has been caught in the blast area and destroyed along with it."

Olirzon was in the drawing room of the hotel suite when they returned, sitting on the middle of his spinal column in a reclining chair, smoking a pipe, dressing the edge of his knife with a pocket-hone, and gazing lecherously at a young woman in the visiplat. She was an extremely well-designed young woman, in a rather fragmentary costume, and she was heaving her bosom at the invisible audience in anger, sorrow, scorn, entreaty, and numerous other emotions.

"... this revolting crime," she was declaiming, in a husky contralto, as Verkan Vall and Marnik entered, "foul even for the criminal beasts who conceived and perpetrated it!" She pointed an accusing finger. "This murder of the beautiful Lady Dallona of Hadron!"

Verkan Vall stopped short, considering the possibility of something having been discovered lately of which he was ignorant. Olirzon must have guessed his thought; he grinned reassuringly.

"Think nothing of it, Lord Virzal," he said, waving his knife at the visiplat. "Just political propaganda; strictly for the sparrows. Nice propagandist, though."

"And now," the woman with the magnificent natural resources lowered her voice reverently, "we bring you the last image of the Lady Dallona, and of Dirzed, her faithful Assassin, taken just before they vanished, never to be seen again."

The plate darkened, and there were strains of slow, dirgelike music; then it lighted again, presenting a view of a broad hallway, thronged with men and women in bright varicolored costumes. In the foreground, wearing a tight skirt of deep blue and a short red jacket, was Hadron Dalla, just as she had looked in the solidographs taken in Dhergabar after her alteration by the First Level cosmeticians to conform to the appearance of the Malayoid Akor-Neb people. She was holding the arm of a man who wore the black tunic and red badge of an Assassin,

a handsome specimen of the Akor-Neb race. Trust little Dalla for that, Verkan Vall thought. The figures were moving with exaggerated slowness, as though a very fleeting picture were being stretched out as far as possible. Having already memorized his former wife's changed appearance, Verkan Vall concentrated on the man beside her until the picture faded.

"All right, Olirzon; what did you get?" he asked.

"Well, first of all, at Assassins' Hall," Olirzon said, rolling up his left sleeve, holding his bare forearm to the light, and shaving a few fine hairs from it to test the edge of his knife. "Of course, they never tell one Assassin anything about the client of another Assassin; that's standard practice. But I was in the Lodge Secretary's office, where nobody but Assassins are ever admitted. They have a big panel in there, with the names of all the Lodge members on it in light-letters; that's standard in all Lodges. If an Assassin is unattached and free to accept a client, his name's in white light. If he has a client, the light's changed to blue, and the name of the client goes up under his. If his whereabouts are unknown, the light's changed to amber. If he is discarnated, his name's removed entirely, unless the circumstances of his discarnation are such as to constitute an injury to the Society. In that case, the name's in red light until he's been properly avenged, or, as we say, till his blood's been mopped up. Well, the

name of Dirzed is up in blue light, with the name of Dallona of Hadron under it. I found out that the light had been amber for two days after the disappearance, and then had been changed back to blue. Get it, Lord Virzal?"

Verkan Vall nodded. "I think so. I'd been considering that as a possibility from the first. Then what?"

"Then I was about and around for a couple of hours, buying drinks for people—unattached Assassins, Constabulary detectives, political workers, newscast people. You owe me fifteen System Monetary Units for that, Lord Virzal. What I got, when it's all sorted out—I taped it in detail, as soon as I got back—reduces to this: The Volitionalists are moving mountains to find out who was the spy at Garnon of Roxor's discarnation feast, but are doing nothing but nothing at all to find the Lady Dallona or Dirzed. The Statisticians are making all sorts of secret efforts to find out what happened to her. The Constabulary blame the Statistos for the package-bomb; they're interested in that because of the discarnation of the three servants by an illegal weapon of indiscriminate effect. They claim that the disappearance of Dirzed and the Lady Dallona was a publicity hoax. The Volitionalists are preparing a line of publicity to deny this."

Verkan Vall nodded. "That ties in with what you learned at Assassins' Hall," he said. "They're hiding out somewhere. Is there any chance of reaching Dirzed through the So-

ciety of Assassins?"

Olirzon shook his head. "If you're right—and that's the way it looks to me, too—he's probably just called in and notified the Society that he's still incarnate and so is the Lady Dallona, and called off any search the Society might be making for him."

"And I've got to find the Lady Dallona as soon as I can. Well, if I can't reach her, maybe I can get her to send word to me," Verkan Vall said. "That's going to take some doing, too."

"What did you find out, Lord Virzal?" Olirzon asked. He had a piece of soft leather, now, and was polishing his blade lovingly.

"The Reincarnation Research people don't know anything," Verkan Vall replied. "Dr. Harnosh of Hosh thinks she's discarnate. I did find out that the experimental work she's done, so far, has absolutely disproved the theory of Statistical Reincarnation. The Volitionalists' theory is solidly established."

"Yes, what do you think, Olirzon?" Marnik added. "They have a case on record of a man who worked up from field hand to millionaire in five reincarnations. Deliberately, that is." He went on to repeat what Harnosh of Hosh had said; he must have possessed an almost eidetic memory, for he gave the bearded psychiatrist's words verbatim, and threw in the gestures and voice-inflections.

Olirzon grinned. "You know, there's a chance for the easy-money

boys," he considered. "You, too, can Reincarnate as a millionaire! Let Dr. Nirzutz of Futzbutz Help You! Only 49.98 System Monetary Units for the Secret, Infallible, Autosuggestive Formula. And would it sell!" He put away the hone and the bit of leather and slipped his knife back into its sheath. "If I weren't a respectable Assassin, I'd give it a try, myself."

Verkan Vall looked at his watch. "We'd better get something to eat," he said. "We'll go down to the main dining room; the Martian Room, I think they call it. I've got to think of some way to let the Lady Dallona know I'm looking for her."

The Martian Room, fifteen stories down, was a big place, occupying almost half of the floor space of one corner tower. It had been fitted to resemble one of the ruined buildings of the ancient and vanished race of Mars who were the ancestors of Teran humanity. One whole side of the room was a gigantic cine-solidograph screen, on which the gullied desolation of a Martian landscape was projected; in the course of about two hours, the scene changed from sunrise through daylight and night to sunrise again.

It was high noon when they entered and found a table; by the time they had finished their dinner, the night was ending and the first glow of dawn was tinting the distant hills. They sat for a while, watching the light grow stronger, then got up and left the table.

There were five men at a table near them; they had come in before the stars had grown dim, and the waiters were just bringing their first dishes. Two were Assassins, and the other three were of a breed Verkan Vall had learned to recognize on any time-line — the arrogant, cocksure, ambitious, leftist politician, who knows what is best for everybody better than anybody else does, and who is convinced that he is inescapably right and that whoever differs with him is not only an ignoramus but a venal scoundrel as well. One was a beefy man in a gold-laced cream-colored dress tunic; he had thick lips and a too-ready laugh. Another was a rather monkish-looking young man who spoke earnestly and rolled his eyes upward, as though at some celestial vision. The third had the faint powdering of gray in his black hair which was, among the Akor-Neb people, almost the only indication of advanced age.

"Of course it is; the whole thing is a fraud," the monkish young man was saying angrily. "But we can't prove it."

"Oh, Sirzob, here, can prove anything, if you give him time," the beefy one laughed. "The trouble is, there isn't too much time. We know that that communication was a fake, prearranged by the Volitionalists, with Dr. Harnosh and this Dallona of Hadron as their tools. They fed the whole thing to that idiot boy hypnotically, in advance, and then, on a signal, he began typing out this spurious communication. And then,

of course, Dallona and this Assassin of hers ran off somewhere together, so that we'd be blamed with discarnating or abducting them, and so that they wouldn't be made to testify about the communication on a lie detector."

A sudden happy smile touched Verkan Vall's eyes. He caught each of his Assassins by an arm.

"Marnik, cover my back," he ordered. "Ollirzon, cover everybody at the table. Come on!"

Then he stepped forward, halting between the chairs of the young man and the man with the gray hair and facing the beefy man in the light tunic.

"You!" he barked. "I mean YOU."

The beefy man stopped laughing and stared at him; then sprang to his feet. His hand, streaking toward his left armpit, stopped and dropped to his side as Ollirzon aimed a pistol at him. The others sat motionless.

"You," Verkan Vall continued, "are a complete, deliberate, malicious, and unmitigated liar. The Lady Dallona of Hadron is a scientist of integrity, incapable of falsifying her experimental work. What's more, her father is one of my best friends; in his name, and in hers, I demand a full retraction of the slanderous statements you have just made."

"Do you know who I am?" the beefy one shouted.

"I know *what* you are," Verkan Vall shouted back. Like most ancient languages, the Akor-Neb

speech included an elaborate, delicately-shaded, and utterly vile vocabulary of abuse; Verkan Vall culled from it judiciously and at length. "And if I don't make myself understood verbally, we'll go down to the object level," he added, snatching a bowl of soup from in front of the monkish-looking young man and throwing it across the table.

The soup was a dark brown, almost black. It contained bits of meat, and mushrooms, and slices of hard-boiled egg, and yellow Martian rock lichen. It produced, on the light tunic, a most spectacular effect.

For a moment, Verkan Vall was afraid the fellow would have an apoplectic stroke, or an epileptic fit. Mastering himself, however, he bowed jerkily.

"Marnark of Bashad," he identified himself. "When and where can my friends consult yours?"

"Lord Virzal of Verkan," the paratimer bowed back. "Your friends can negotiate with mine here and now. I am represented by these Gentlemen-Assassins."

"I won't submit my friends to the indignity of negotiating with them," Marnark retorted. "I insist that you be represented by persons of your own quality and mine."

"Oh, you do?" Olirzon broke in. "Well, is your objection personal to me, or to Assassins as a class? In the first case, I'll remember to make a private project of you, as soon as I'm through with my present employment; if it's the latter, I'll report your attitude to the Society. I'll see

what Klarnood, our President-General, thinks of your views."

A crowd had begun to accumulate around the table. Some of them were persons in evening dress, some were Assassins on the hotel payroll, and some were unattached Assassins.

"Well, you won't have far to look for him," one of the latter said, pushing through the crowd to the table.

He was a man of middle age, inclined to stoutness; he made Verkan Vall think of a chocolate figure of Tortha Karf. The red badge on his breast was surrounded with gold lace, and, instead of black wings and a silver bullet, it bore silver wings and a golden dagger. He bowed contemptuously at Marnark of Bashad.

"Klarnood, President-General of the Society of Assassins," he announced. "Marnark of Bashad, did I hear you say that you considered members of the Society as unworthy to negotiate an affair of honor with your friends, on behalf of this nobleman who has been courteous enough to accept your challenge?" he demanded.

Marnark of Bashad's arrogance suffered considerable evaporation-loss. His tone became almost servile.

"Not at all, Honorable Assassin-President," he protested. "But as I was going to ask these gentlemen to represent me, I thought it would be more fitting for the other gentleman to be represented by personal friends, also. In that way—"

"Sorry, Marnark," the gray-haired man at the table said. "I can't second you; I have a quarrel with the Lord Virzal, too." He rose and bowed. "Sirzob of Abo. Inasmuch as the Honorable Marnark is a guest at my table, an affront to him is an affront to me. In my quality as his host, I must demand satisfaction from you, Lord Virzal."

"Why, gladly, Honorable Sirzob," Verkan Vall replied. This was getting better and better every moment. "Of course, your friend, the Honorable Marnark, enjoys priority of challenge; I'll take care of you as soon as I have, shall we say, satisfied him."

The earnest and rather consecrated-looking young man rose also, bowing to Verkan Vall.

"Yirzol of Narva. I, too, have a quarrel with you, Lord Virzal; I cannot submit to the indignity of having my food snatched from in front of me, as you just did. I also demand satisfaction."

"And quite rightly, Honorable 'Yirzol," Verkan Vall approved. "It looks like such good soup, too," he sorrowed, inspecting the front of Marnark's tunic. "My seconds will negotiate with yours immediately; your satisfaction, of course, must come after that of Honorable Sirzob."

"If I may intrude," Klarnood put in smoothly, "may I suggest that as the Lord Virzal is represented by his Assassins, yours can represent all three of you at the same time. I will gladly offer my own good offices

as impartial supervisor."

Verkan Vall turned and bowed as to royalty. "An honor, Assassin-President; I am sure no one could act in that capacity more satisfactorily."

"Well, when would it be most convenient to arrange the details?" Klarnood inquired. "I am completely at your disposal, gentlemen."

"Why, here and now, while we're all together," Verkan Vall replied.

"I object to that!" Marnark of Bashad vociferated. "We can't make arrangements here; why, all these hotel people, from the manager down, are nothing but tipsters for the newscast services!"

"Well, what's wrong with that?" Verkan Vall demanded. "You knew that when you slandered the Lady Dallona in their hearing."

"The Lord Virzal of Verkan is correct," Klarnood ruled. "And the offenses for which you have challenged him were also committed in public. By all means, let's discuss the arrangements now." He turned to Verkan Vall. "As the challenged party, you have the choice of weapons; your opponents, then, have the right to name the conditions under which they are to be used."

Marnark of Bashad raised another outcry over that. The assault upon him by the Lord Virzal of Verkan was deliberately provocative, and therefore tantamount to a challenge; he, himself, had the right to name the weapons. Klarnood upheld him.

"Do the other gentlemen make the

same claim?" Verkan Vall wanted to know.

"If they do, I won't allow it," Klarwood replied. "You deliberately provoked Honorable Marnark, but the offenses of provoking him at Honorable Sirzob's table, and of throwing Honorable Yirzol's soup at him, were not given with intent to provoke. These gentlemen have a right to challenge, but not to consider themselves provoked."

"Well, I choose knives, then," Marnark hastened to say.

Verkan Vall smiled thinly. He had learned knife-play among the greatest masters of that art in all paratime, the Third Level Khanga pirates of the Caribbean Islands.

"And we fight barefoot, stripped to the waist, and without any parrying weapon in the left hand," Verkan Vall stipulated.

The beefy Marnark fairly licked his chops in anticipation. He outweighed Verkan Vall by forty pounds; he saw an easy victory ahead. Verkan Vall's own confidence increased at these signs of his opponent's assurance.

"And as for Honorable Sirzob and Honorable Yirzol, I chose pistols," he added.

Sirzob and Yirzol held a hasty whispered conference.

"Speaking both for Honorable Yirzol and for myself," Sirzob announced, "we stipulate that the distance shall be twenty meters, that the pistols shall be fully loaded, and that fire shall be at will after the command."

"Twenty rounds, fire at will, at twenty meters!" Olirzon hooted. "You must think our principal's as bad a shot as you are!"

The four Assassins stepped aside and held a long discussion about something, with considerable argument and gesticulation. Klarwood, observing Verkan Vall's impatience, leaned close to him and whispered:

"This is highly irregular; we must pretend ignorance and be patient. They're laying bets on the outcome. You must do your best, Lord Virzal; you don't want your supporters to lose money."

He said it quite seriously, as though the outcome were otherwise a matter of indifference to Verkan Vall.

Marnark wanted to discuss time and place, and proposed that all three duels be fought at dawn, on the fourth landing stage of Darsh Central Hospital; that was closest to the maternity wards, and statistics showed that most births occurred just before that hour.

"Certainly not," Verkan Vall vetoed. "We'll fight here and now; I don't propose going a couple of hundred miles to meet you at any such unholy hour. We'll fight in the nearest hallway that provides twenty meters' shooting distance."

Marnark, Sirzob and Yirzol all clamored in protest. Verkan Vall shouted them down, drawing on his hypnotically acquired knowledge of Akor-Neb duelling customs. "The code explicitly states that satisfac-

tion shall be rendered as promptly as possible, and I insist on a literal interpretation. I'm not going to inconvenience myself and Assassin-President Klarnood and these four Gentlemen-Assassins just to humor Statistalist superstitions."

The manager of the hotel, drawn to the Martian Room by the uproar, offered a hallway connecting the kitchens with the refrigerator rooms; it was fifty meters long by five in width, was well-lighted and sound-proof, and had a bay in which the seconds and other could stand during the firing.

They repaired thither in a body, Klarnood gathering up several hotel servants on the way through the kitchen. Verkan Vall stripped to the waist, pulled off his ankle boots, and examined Olirzon's knife. Its tapering eight-inch blade was double-edged at the point, and its handle was covered with black velvet to afford a good grip, and wound with gold wire. He nodded approvingly, gripped it with his index finger crooked around the cross-guard, and advanced to meet Marnark of Bashad.

As he had expected, the burly politician was depending upon his greater brawn to overpower his antagonist. He advanced with a sidling, spread-legged gait, his knife hand against his right hip and his left hand extended in front. Verkan Vall nodded with pleased satisfaction; a wrist-grabber. Then he blinked. Why, the fellow was actually holding his knife reversed, his little finger

to the guard and his thumb on the pommel!

Verkan Vall went briskly to meet him, made a feint at his knife hand with his own left, and then side-stepped quickly to the right. As Marnark's left hand grabbed at his right wrist, his left hand brushed against it and closed into a fist, with Marnark's left thumb inside of it. He gave a quick downward twist with his wrist, pulling Marnark off balance.

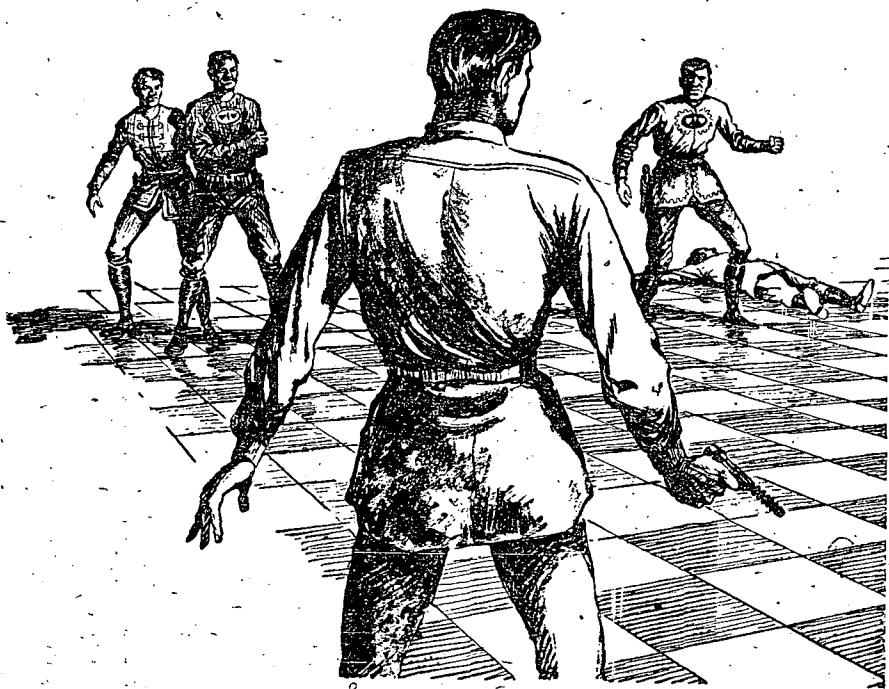
Caught by surprise, Marnark stumbled, his knife flailing wildly away from Verkan Vall. As he stumbled forward, Verkan Vall pivoted on his left heel and drove the point of his knife into the back of Marnark's neck, twisting it as he jerked it free. At the same time, he released Marnark's thumb. The politician continued his stumble and fell forward on his face, blood spurting from his neck. He gave a twitch or so, and was still.

Verkan Vall stooped and wiped the knife on the dead man's clothes—another Khanga pirate gesture—and then returned it to Olirzon.

"Nice weapon, Olirzon," he said. "It fitted my hand as though I'd been born holding it."

"You used it as though you had, Lord Virzal," the Assassin replied. "Only eight seconds from the time you closed with him."

The function of the hotel servants whom Klarnood had gathered up now became apparent; they advanced, took the body of Marnark



by the heels, and dragged it out of the way. The others watched this removal with mixed emotions. The two remaining principals were impassive and frozen-faced. Their two Assassins, who had probably bet heavily on Marnark, were chagrined. And Klarnood was looking at Verkan Vall with a considerable accretion of respect. Verkan Vall pulled on his boots and resumed his clothing.

There followed some argument about the pistols; it was finally decided that each combatant should use his own shoulder-holster weapon. All three were nearly enough alike—

small weapons, rather heavier than they looked, firing a tiny ten-grain bullet at ten thousand foot-seconds. On impact, such a bullet would almost disintegrate; a man hit anywhere in the body with one would be killed instantly, his nervous system paralyzed and his heart stopped by internal pressure. Each of the pistols carried twenty rounds in the magazine.

Verkan Vall and Sirzob of Abo took their places, their pistols lowered at their sides, facing each other across a measured twenty meters.

"Are you ready, gentlemen?" Klarnood asked. "You will not raise



your pistols until the command to fire; you may fire at will after it. Ready. *Fire!*"

Both pistols swung up to level. Verkan Vall found Sirzob's head in his sights and squeezed; the pistol kicked back in his hand, and he saw a lance of blue flame jump from the muzzle of Sirzob's. Both weapons barked together, and with the double report came the whip-cracking sound of Sirzob's bullet passing Verkan Vall's head. Then Sirzob's face altered its appearance unpleasantly, and he pitched forward. Verkan Vall thumbed on his safety and stood motionless, while the servants ad-

vanced, took Sirzob's body by the heels, and dragged it over beside Marnark's.

"All right; Honorable Yirzol, you're next," Verkan Vall called out.

"The Lord Virzal has fired one shot," one of the opposing seconds objected, "and Honorable Yirzol has a full magazine. The Lord Virzal should put in another magazine."

"I grant him the advantage; let's get on with it," Verkan Vall said.

Yirzol of Narva advanced to the firing point. He was not afraid of death—none of the Akor-Neb people were; their language contained no word to express the concept of total

and final extinction—and discarnation by gunshot was almost entirely painless. But he was beginning to suspect that he had made a fool of himself by getting into this affair, he had work in his present reincarnation which he wanted to finish, and his political party would suffer loss, both of his services and of prestige.

"Are you ready, gentlemen?" Klarnood intoned ritualistically. "You will not raise your pistols until the command to fire; you may fire at will after it. Ready, *Fire!*"

Verkan Vall shot Yirzol of Narva through the head before the latter had his pistol half raised. Yirzol fell forward on the splash of blood Sirzob had made, and the servants came forward and dragged his body over with the others. It reminded Verkan Vall of some sort of industrial assembly-line operation. He replaced the two expended rounds in his magazine with fresh ones and slid the pistol back into its holster. The two Assassins whose principals had been so expeditiously massacred were beginning to count up their losses and pay off the winners.

Klarnood, the President-General of the Society of Assassins, came over, hooking fingers and clapping shoulders with Verkan Vall.

"Lord Virzal, I've seen quite a few duels, but nothing quite like that," he said. "You should have been an Assassin!"

That was a considerable compliment. Verkan Vall thanked him modestly.

"I'd like to talk to you privately,"

the Assassin-President continued. "I think it'll be worth your while if we have a few words together."

Verkan Vall nodded. "My suite is on the fifteenth floor above; will that be all right?" He waited until the losers had finished settling their bets; then motioned to his own pair of Assassins.

As they emerged into the Martian Room again, the manager was waiting; he looked as though he were about to demand that Verkan Vall vacate his suite. However, when he saw the arm of the President-General of the Society of Assassins draped amicably over his guest's shoulder, he came forward bowing and smiling.

"Larnorm, I want you to put five of your best Assassins to guarding the approaches to the Lord Virzal's suite," Klarnood told him. "I'll send five more from Assassins' Hall to replace them at their ordinary duties. And I'll hold you responsible with your carnate existence for the Lord Virzal's safety in this hotel. Understand?"

"Oh, yes, Honorable Assassin-President; you may trust me. The Lord Virzal will be perfectly safe."

In Verkan Vall's suite, above, Klarnood sat down and got out his pipe, filling it with tobacco lightly mixed with *zerfa*. To his surprise, he saw his host light a plain tobacco cigarette.

"Don't you use *zerfa*?" he asked.

"Very little," Verkan Vall replied.

"I grow it. If you'd see the bums who

hang around our drying sheds, on Venus, cadging rejected leaves and smoking themselves into a stupor, you'd be frugal in using it, too."

Klarnood nodded. "You know, most men would want a pipe of fifty percent, or a straight *zerfa* cigarette, after what you've been through," he said.

"I'd need something like that, to deaden my conscience, if I had one to deaden," Verkan Vall said. "As it is, I feel like a murderer of babes. That overgrown fool, Marnark, handled his knife like a cow-butcher. The young fellow couldn't handle a pistol at all. I suppose the old fellow, Sirzob, was a fair shot, but dropping him wasn't any great feat of arms, either."

Klarnood looked at him curiously for a moment. "You know," he said, at length, "I believe you actually mean that. Well, until he met you, Marnark of Bashad was rated as the best knife-fighter in Darsh. Sirzob had ten dueling victories to his credit, and young Yirzol four." He puffed slowly on his pipe. "I like you, Lord Virzal; a great Assassin was lost when you decided to reincarnate as a Venusian landowner. I'd hate to see you disincarnated without proper warning. I take it you're ignorant of the intricacies of Terran politics?"

"To a large extent, yes."

"Well, do you know who those three men were?" When Verkan Vall shook his head, Klarnood continued: "Marnark was the son and right-hand associate of old Mirzark

of Bashad, the Statisticalist Party leader. Sirzob of Abo was their propaganda director. And Yirzol of Narva was their leading socio-economic theorist, and their candidate for Executive Chairman. In six minutes, with one knife thrust and two shots, you did the Statisticalist Party an injury second only to that done them by the young lady in whose name you were fighting. In two weeks, there will be a planet-wide general election. As it stands, the Statisticalists have a majority of the seats in Parliament and on the Executive Council. As a result of your work and the Lady Dallona's, they'll lose that majority, and more, when the votes are tallied."

"Is that another reason why you like me?" Verkan Vall asked.

"Unofficially, yes. As President-General of the Society of Assassins, I must be nonpolitical. The Society is rigidly so; if we let ourselves become involved, as an organization, in politics, we could control the System Government inside of five years, and we'd be wiped out of existence in fifty years by the very forces we sought to control," Klarnood said. "But personally, I would like to see the Statisticalist Party destroyed. If they succeed in their program of socialization, the Society would be finished. A socialist state is, in its final development, an absolute, total, state; no total state can tolerate extra-legal and para-governmental organizations. So we have adopted the policy of giving a little incon-

spicuous aid, here and there, to people who are dangerous to the Statisticalists. The Lady Dallona of Hadron, and Dr. Harnosh of Hosh, are such persons. You appear to be another. That's why I ordered that fellow, Larnorm, to make sure you were safe in his hotel."

"Where is the Lady Dallona?" Verkan Vall asked. "From your use of the present tense, I assume you believe her to be still carnate."

Klarnood looked at Verkan Vall keenly. "That's a pretty blunt question, Lord Virzal," he said. "I wish I knew a little more about you. When you and your Assassins started inquiring about the Lady Dallona, I tried to check up on you. I found out that you had come to Darsh from Ghamma on a ship of the family of Zorda, accompanied by Brarnend of Zorda himself. And that's all I could find out. You claim to be a Venusian planter, and you might be. Any Terran who can handle weapons as you can would have come to my notice long ago. But you have no more ascertainable history than if you'd stepped out of another dimension."

That was getting uncomfortably close to the truth. In fact, it *was* the truth. Verkan Vall laughed.

"Well, confidentially," he said, "I'm from the Arcturus System. I followed the Lady Dallona here from our home planet, and when I have rescued her from among you Solarians, I shall, according to our customs, receive her hand in marriage. As she is the daughter of the Em-

peror of Arcturus, that'll be quite a good thing for me."

Klarnood chuckled. "You know, you'd only have to tell me that about three or four times and I'd start believing it," he said. "And Dr. Harnosh of Hosh would believe it the first time; he's been talking to himself ever since the Lady Dallona started her experimental work here. Lord Virzal, I'm going to take a chance on you. The Lady Dallona is still carnate, or was four days ago, and the same for Dirzed. They both went into hiding after the discarnation feast of Garnon of Roxor, to escape the enmity of the Statisticalists. Two days after they disappeared, Dirzed called Assassins' Hall and reported this, but told us nothing more. I suppose, in about three or four days, I could re-establish contact with him. We want the public to think that the Statisticalists made away with the Lady Dallona, at least until the election's over."

Verkan Vall nodded. "I was pretty sure that was the situation," he said. "It may be that they will get in touch with me; if they don't, I'll need your help in reaching them."

"Why do you think the Lady Dallona will try to reach you?"

"She needs all the help she can get. She knows she can get plenty from me. Why do you think I interrupted my search for her, and risked my carnate existence, to fight those people over a matter of verbalisms and political propaganda?" Verkan Vall went to the newscast visiplat and snapped it on: "We'll see if I'm

getting results, yet."

The plate lighted, and a handsome young man in a gold-laced green suit was speaking out of it:

"... where he is heavily guarded by Assassins. However, in an exclusive interview with representatives of this service, the Assassin Hirzif, one of the two who seconded the men the Lord Virzal fought, said that in his opinion all of the three were so outclassed as to have had no chance whatever, and that he had already refused an offer of ten thousand System Monetary Units to discarnate the Lord Virzal for the Statisticalist Party. 'When I want to discarnate,' Hirzif the Assassin said, 'I'll invite in my friends and do it properly; until I do, I wouldn't go up against the Lord Virzal of Verkan for ten-million S.M.U.'"

Verkan Vall snapped off the visiplate. "See what I mean?" he asked. "I fought those politicians just for the advertising. If Dallona and Dirzed are anywhere near a visiplate, they'll know how to reach me."

"Hirzif shouldn't have talked about refusing that retainer," Klarnood frowned. "That isn't good Assassin ethics. Why, yes, Lord Virzal; that was cleverly planned. It ought to get results. But I wish you'd get the Lady Dallona out of Darsh, and preferably off Terra, as soon as you can. We've benefited by this, so far, but I shouldn't like to see things go much further. A real civil war could develop out of this situation, and I don't want that. Call on me for help; I'll give you a code

word to use at Assassins' Hall."

A real civil war was developing even as Klarnood spoke; by mid-morning of the next day, the fighting that had been partially suppressed by the Constabulary had broken out anew. The Assassins employed by the Solar Hotel—heavily re-enforced during the night—had fought a pitched battle with Statisticalist partisans on the landing-stage above Verkan Vall's suite, and now several Constabulary airboats were patrolling around the building. The rule on Constabulary interference seemed to be that while individuals had an unquestionable right to shoot out their differences among themselves, any fighting likely to endanger nonparticipants was taboo.

Just how successful in enforcing this rule the Constabulary were was open to some doubt. Ever since arising, Verkan Vall had heard the crash of small arms and the hammering of automatic weapons in other parts of the towering city-unit. There hadn't been a civil war on the Akor-Neb Sector for over five centuries, he knew, but then, Hadron Dalla, Doctor of Psychic Science, and intertemporal trouble-carrier extraordinary, had only been on this sector for a little under a year. If anything, he was surprised that the explosion had taken so long to occur.

One of the servants furnished to him by the hotel management approached him in the drawing room, holding a four-inch-square wafer of white plastic.

"Lord Virzal, there is a masked Assassin in the hallway who brought this under Assassins' Truce," he said.

Verkan Vall took the wafer and pared off three of the four edges, which showed black where they had been fused. Unfolding it, he found, as he had expected, that the pyrographed message within was in the alphabet and language of the First Paratime Level:

Vall, darling:-

'Am I glad you got here; this time I really *am* in the middle, but good! The Assassin, Dirzed, who brings this, is in my service. You can trust him implicitly; he's about the only person in Dash you can trust. He'll bring you to where I am.

Dalla

P.S. I hope you're not still angry about that musician. I told you, at the time, that he was just helping me with an experiment in telepathy.

D.

Verkan Vall grinned at the postscript. That had been twenty years ago, when he'd been eighty and she'd been seventy. He supposed she'd expect him to take up his old relationship with her again. It probably wouldn't last any longer than it had, the other time; he recalled a Fourth Level proverb about the leopard and his spots. It certainly wouldn't be boring, though.

"Tell the Assassin to come in," he directed. Then he tossed the message down on a table. Outside of himself, nobody in Darsh could read it but the woman who had sent it; if, as he thought highly probable, the Statisticalists had spies among the hotel staff, it might serve to re-

duce some cryptanalyst to gibbering insanity.

The Assassin entered, drawing off a cowllike mask. He was the man whose arm Dalla had been holding in the visiplat picture; Verkan Vall even recognized the extremely ornate pistol and knife on his belt.

"Dirzed the Assassin," he named himself. "If you wish, we can visiphone Assassins' Hall for verification of my identity."

"Lord Virzal of Verkan. And my Assassins, Marnik and Olirzon." They all hooked fingers and clapped shoulders with the newcomer. "That won't be needed," Verkan Vall told Dirzed. "I know you from seeing you with the Lady Dallona, on the visiplat; you're 'Dirzed, her faithful Assassin.'"

Dirzed's face, normally the color of a good walnut gunstock, turned almost black. He used shockingly bad language.

"And that's why I have to wear this abomination," he finished, displaying the mask. "The Lady Dallona and I can't show our faces anywhere; if we did, every Statisticalist and his six-year-old brat would know us, and we'd be fighting off an army of them in five minutes."

"Where's the Lady Dallona, now?"

"In hiding, Lord Virzal, at a private dwelling dome in the forest; she's most anxious to see you. I'm to take you to her, and I would strongly advise that you bring your Assassins along. There are other

people at this dome, and they are not personally loyal to the Lady Dallona. I've no reason to suspect them of secret enmity, but their friendship is based entirely on political expediency."

"And political expediency is subject to change without notice," Verkan Vall finished for him. "Have you an airboat?"

"On the landing stage below. Shall we go now, Lord Virzal?"

"Yes." Verkan Vall made a two-handed gesture to his Assassins, as though gripping a submachine-gun; they nodded, went into another room, and returned carrying light automatic weapons in their hands and pouches of spare drums slung over their shoulders. "And may I suggest, Dirzed, that one of my Assassins drives the airboat? I want you on the back seat with me, to explain the situation as we go."

Dirzed's teeth flashed white against his brown skin as he gave Verkan Vall a quick smile.

"By all means, Lord Virzal; I would much rather be distrusted than to find that my client's friends were not discreet."

There were a couple of hotel Assassins guarding Dirzed's airboat, on the landing stage. Marnik climbed in under the controls, with Olirzon beside him; Verkan Vall and Dirzed entered the rear seat. Dirzed gave Marnik the co-ordinate reference for their destination.

"Now, what sort of a place is this, where we're going?" Verkan Vall asked. "And who's there whom we

may or may not trust?"

"Well, it's a dome house belonging to the family of Starpha; they own a five-mile radius around it, oak and beech forest and underbrush, stocked with deer and boar. A hunting lodge. Prince Jirzyn of Starpha, Lord Girzon of Roxor, and a few other top-level Volitionalists, know that the Lady Dallona's hiding there. They're keeping her out of sight till after the election, for propaganda purposes. We've been hiding there since immediately after the discarnation feast of the Lord Garnon of Roxor."

"What happened, after the feast?" Verkan Vall wanted to know.

"Well, you know how the Lady Dallona and Dr. Harnosh of Hosh had this telepathic-sensitive there, in a trance and drugged with a *zerfa*-derivative alkaloid the Lady Dallona had developed. I was Lord Garnon's Assassin; I discarnated him, myself. Why, I hadn't even put my pistol away before he was in control of this sensitive, in a room five stories above the banquet hall; he began communicating at once. We had visiplates to show us what was going on.

"Right away, Nirzav of Shonna, one of the Statisticalist leaders who was a personal friend of Lord Garnon's in spite of his politics, renounced Statisticalism and went over to the Volitionalists, on the strength of this communication. Prince Jirzyn, and Lord Girzon, the new family-head of Roxor, decided that there would be trouble in the next few days, so they advised the Lady

Dallona to come to this hunting lodge for safety. She and I came here in her airboat, directly from the feast. A good thing we did, too; if we'd gone to her apartment, we'd have walked in before that lethal gas had time to clear.

"There are four Assassins of the family of Starpha, and six menservants, and an upper-servant named Tarnod, the gamekeeper. The Starpha Assassins and I have been keeping the rest under observation. I left one of the Starpha Assassins guarding the Lady Dallona when I came for you, under brotherly oath to protect her in my name till I returned."

The airboat was skimming rapidly above the treetops, toward the northern part of the city.

"What's known about that package bomb?" Verkan Vall asked. "Who sent it?"

Dirzed shrugged. "The Statisticians, of course. The wrapper was stolen from the Reincarnation Research Institute; so was the case. The Constabulary are working on it." Dirzed shrugged again.

The dome, about a hundred and fifty feet in width and some fifty in height, stood among the trees ahead. It was almost invisible from any distance; the concrete dome was of mottled green and gray concrete, trees grew so close as to brush it with their branches, and the little pavilion on the flattened top was roofed with translucent green plastic. As the airboat came in, a couple of men in Assassins' garb emerged from the pavilion to meet them.

"Marnik, stay at the controls," Verkan Vall directed. "I'll send Olirzon up for you if I want you. If there's any trouble, take off for Assassins' Hall and give the code word, then come back with twice as many men as you think you'll need."

Dirzed raised his eyebrows over this. "I hadn't known the Assassin-President had given you a code word, Lord Virzal," he commented. "That doesn't happen very often."

"The Assassin-President has honored me with his friendship," Verkan Vall replied noncommittally, as he, Dirzed and Olirzon climbed out of the airboat. Marnik was holding it an unobtrusive inch or so above the flat top of the dome, away from the edge of the pavilion roof.

The two Assassins greeted him, and a man in upper-servants' garb and wearing a hunting knife and a long hunting pistol approached.

"Lord Virzal of Verkan? Welcome to Starpha Dome. The Lady Dallona awaits you below."

Verkan Vall had never been in an Akor-Neb dwelling dome, but a description of such structures had been included in his hypno-mech indoctrination. Originally, they had been the standard structure for all purposes; about two thousand elapsed years ago, when nationalism had still existed on the Akor-Neb Sector, the cities had been almost entirely underground, as protection from air attack. Even now, the design had been retained by those who wished to live apart from the towering city

units, to preserve the natural appearance of the landscape. The Starpha hunting lodge was typical of such domes. Under it was a circular well, eighty feet in depth and fifty in width, with a fountain and a shallow circular pool at the bottom. The storerooms, kitchens and servants' quarters were at the top, the living quarters at the bottom, in segments of a wide circle around the well, back of balconies.

"Tarnod, the gamekeeper," Dirzed performed the introductions. "And Eraño and Kirzol, Assassins."

Verkan Vall hooked fingers and clapped shoulders with them. Tarnod accompanied them to the lifter tubes—two percent positive gravitation for descent and two percent negative for ascent—and they all floated down the former, like air-filled balloons, to the bottom level.

"The Lady Dallona is in the gun room," Tarnod informed Verkan Vall, making as though to guide him.

"Thanks, Tarnod; we know the way," Dirzed told him shortly, turning his back on the upper-servant and walking toward a closed door on the other side of the fountain. Verkan Vall and Olirzon followed; for a moment, Tarnod stood looking after them, then he followed the other two Assassins into the ascent tube.

"I don't relish that fellow," Dirzed explained. "The family of Starpha use him for work they couldn't hire an Assassin to do at any price. I've been here often, when

I was with the Lord Garnon; I've always thought he had something on Prince Jirzyn."

He knocked sharply on the closed door with the butt of his pistol. In a moment, it slid open, and a young Assassin with a narrow mustache and a tuft of chin beard looked out.

"Ah, Dirzed." He stepped outside. "The Lady Dallona is within; I return her to your care."

Verkan Vall entered, followed by Dirzed and Olirzon. The big room was fitted with reclining chairs and couches and low tables; its walls were hung with the heads of deer and boar and wolves, and with racks holding rifles and hunting pistols and fowling pieces. It was filled with the soft glow of indirect cold light. At the far side of the room, a young woman was seated at a desk, speaking softly into a sound transcriber. As they entered, she snapped it off and rose.

Hadron Dalla wore the same costume Verkan Vall had seen on the visiplat; he recognized her instantly. It took her a second or two to perceive Verkan Vall under the brown skin and black hair of the Lord Virzal of Verkan. Then her face lighted with a happy smile.

"Why, Va-a-a-ll!" she whooped, running across the room and tossing herself into his not particularly reluctant arms. After all, it had been twenty years—"I didn't know you, at first!"

"You mean, in these clothes?" he asked, seeing that she had forgotten, for the moment, the presence of

the two Assassins. She had even called him by his First Level name, but that was unimportant—the Akor-Neb affectionate diminutive was formed by omitting the *-irz-* or *-arn-*. “Well, they’re not exactly what I generally wear on the plantation.” He kissed her again, then turned to his companions. “Your pardon, Gentlemen-Assassins; it’s been something over a year since we’ve seen each other.”

Olirzon was smiling at the affectionate reunion; Dirzed wore a look of amused resignation, as though he might have expected something like this to happen. Verkan, Vall and Dalla sat down on a couch near the desk.

“That was really sweet of you, Vall, fighting those men for talking about me,” she began. “You took an awful chance, though. But if you hadn’t, I’d never have known you were in Darsh— Oh-oh! That was why you did it, wasn’t it?”

“Well, I had to do something. Everybody either didn’t know or weren’t saying where you were. I assumed, from the circumstances, that you were hiding somewhere. Tell me, Dalla; do you really have scientific proof of reincarnation? I mean, as an established fact?”

“Oh, yes; these people on this sector have had that for over ten centuries. They have hypnotic techniques for getting back into a part of the subconscious mind that we’ve never been able to reach. And after I found out how they did it, I was

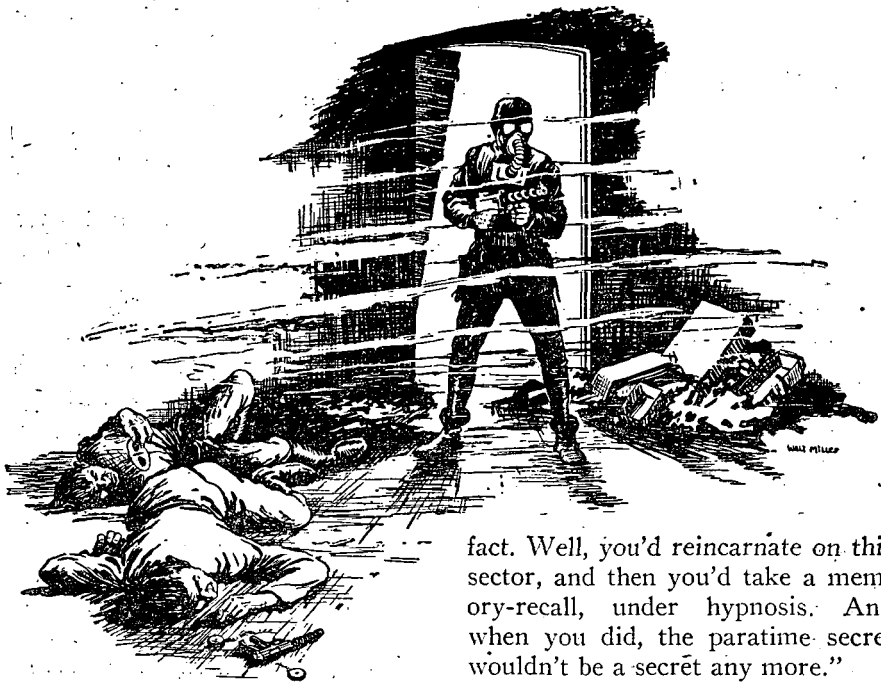
able to adapt some of our hypno-epistemological techniques to it, and—”

“All right; that’s what I wanted to know,” he cut her off. “We’re getting out of here, right away.”

“But where?”

“Ghamma, in an airboat I have outside, and then back to the First Level. Unless there’s a paratime-transposition conveyor somewhere nearer.”

“But why, Vall? I’m not ready to go back; I have a lot of work to do here, yet. They’re getting ready to set up a series of control-experiments at the Institute, and then, I’m in the middle of an experiment, a two-hundred-subject memory-recall experiment. See, I distributed two hundred sets of equipment for my new technique—injection-ampoules of this *zerfa*-derivative drug, and sound records of the hypnotic suggestion formula, which can be played on an ordinary reproducer. It’s just a crude variant of our hypno-mech process, except that instead of implanting information in the subconscious mind, to be brought at will to the level of consciousness, it works the other way, and draws into conscious knowledge information already in the subconscious mind. The way these people have always done has been to put the subject in an hypnotic trance and then record verbal statements made in the trance state; when the subject comes out of the trance, the record is all there is, because the memories of past reincarnations have never been in the



conscious mind. But with my process, the subject can consciously remember everything about his last reincarnation, and as many reincarnations before that as he wishes to. I haven't heard from any of the people who received these auto-recall kits, and I really must—"

"Dalla, I don't want to have to pull Paratime Police authority on you, but, so help me, if you don't come back voluntarily with me, I will. Security of the secret of paratime transposition." *

"Oh, my eye!" Dalla exclaimed. "Don't give me that, Vall!"

"Look, Dalla. Suppose you get discarnated here," Verkan Vall said. "You say reincarnation is a scientific

fact. Well, you'd reincarnate on this sector, and then you'd take a memory-recall, under hypnosis. And when you did, the paratime secret wouldn't be a secret any more."

"Oh!" Dalla's hand went to her mouth in consternation. Like every paratimer, she was conditioned to shrink with all her being from the mere thought of revealing to any out-time dweller the secret ability of her race to pass to other time-lines, or even the existence of alternate lines of probability. "And if I took one of the old-fashioned trance-recalls, I'd blab out everything; I wouldn't be able to keep a thing back. And I even know the principles of transposition!" She looked at him, aghast.

"When I get back, I'm going to put a recommendation through department channels that this whole sector be declared out of bounds for all paratime-transposition, until you

people at Rhogom Foundation work out the problem of discarnate return to the First Level," he told her. "Now, have you any notes or anything you want to take back with you?"

She rose. "Yes; just what's on the desk. Find me something to put the tape spools and notebooks in, while I'm getting them in order."

He secured a large game bag from under a rack of fowling pieces, and held it while she sorted the material rapidly, stuffing spools of record tape and notebooks into it. They had barely begun when the door slid open and Olirzon, who had gone outside, sprang into the room, his pistol drawn, swearing vilely.

"They've double-crossed us!" he cried. "The servants of Starpha have turned on us." He holstered his pistol and snatched up his submachine-gun, taking cover behind the edge of the door and letting go with a burst in the direction of the lifter tubes. "Got that one!" he grunted.

"What happened, Olirzon?" Verkan Vall asked, dropping the game bag on the table and hurrying across the room.

"I went up to see how Marnik was making out. As I came out of the lifter tube, one of the obscenities took a shot at me with a hunting pistol. He missed me; I didn't miss him. Then a couple more of them were coming up, with fowling pieces; I shot one of them before they could fire, and jumped into the descent tube and came down heels over ears.

I don't know what's happened to Marnik." He fired another burst, and swore. "Missed him!"

"Assassins' Truce! Assassins' Truce!" a voice howled out of the descent tube. "Hold your fire, we want to parley."

"Who is it?" Dirzed shouted, over Olirzon's shoulder. "You, Sarnax? Come on out; we won't shoot."

The young Assassin with the mustache and chin beard emerged from the descent tube, his weapons sheathed and his clasped hands extended in front of him in a peculiarly ecclesiastical-looking manner. Dirzed and Olirzon stepped out of the gun room, followed by Verkan Vall and Hadron-Dalla. Olirzon had left his submachine-gun behind. They met the other Assassin by the rim of the fountain pool.

"Lady Dallona of Hadron," the Starpha Assassin began. "I and my colleagues, in the employ of the family of Starpha, have received orders from our clients to withdraw our protection from you, and to discarnate you, and all with you who undertake to protect or support you." That much sounded like a recitation of some established formula; then his voice became more conversational. "I and my colleagues, Erarno and Kirzol and Harnif, offer our apologies for the barbarity of the servants of the family of Starpha, in attacking without declaration of cessation of friendship. Was anybody hurt or discarnated?"

"None of us," Olirzon said. "How about Marnik?"

"He was warned before hostilities were begun against him," Sarnax replied. "We will allow five minutes until—"

Olirzon, who had been looking up the well, suddenly sprang at Dalla, knocking her flat, and at the same time jerking out his pistol. Before he could raise it, a shot banged from above and he fell on his face. Dirzed, Verkan Vall, and Sarnax, all drew their pistols, but whoever had fired the shot had vanished. There was an outburst of shouting above.

"Get to cover," Sarnax told the others. "We'll let you know when we're ready to attack; we'll have to deal with whoever fired that shot, first." He looked at the dead body on the floor, exclaimed angrily, and hurried to the ascent tube, springing upward.

Verkan Vall replaced the small pistol in his shoulder holster and took Olirzon's belt, with his knife and heavier pistol.

"Well, there you see," Dirzed said, as they went back to the gun room. "So much for political expediency."

"I think I understand why your picture and the Lady Dallona's were exhibited so widely," Verkan Vall said. "Now, anybody would recognize your bodies, and blame the Statisticalists for discarnating you."

"That thought had occurred to me, Lord Virzal," Dirzed said. "I suppose our bodies will be atrociously but not unidentifiably mutilated, to further enrage the public," he added placidly. "If I get out of this

carnate, I'm going to pay somebody off for it."

After a few minutes, there was more shouting of: "Assassins' Truce!" from the descent tube. The two Assassins, Erarno and Kirzol, emerged, dragging the gamekeeper, Tarnod, between them. The upper-servant's face was bloody, and his jaw seemed to be broken. Sarnax followed, carrying a long hunting pistol in his hand.

"Here he is!" he announced. "He fired during Assassins' Truce; he's subject to Assassins' Justice!"

He nodded to the others. They threw the gamekeeper forward on the floor, and Sarnax shot him through the head, then tossed the pistol down beside him. "Any more of these people who violate the decencies will be treated similarly," he promised.

"Thank you, Sarnax," Dirzed spoke up. "But we lost an Assassin; discarnating this lackey won't equalize that. We think you should retire one of your number."

"That at least, Dirzed; wait a moment."

The three Assassins conferred at some length. Then Sarnax hooked fingers and clapped shoulders with his companions.

"See you in the next reincarnation, brothers," he told them, walking toward the gun-room door, where Verkan Vall, Dalla and Dirzed stood. "I'm joining you people. You had two Assassins when the parley began, you'll have two when the shooting starts."

Verkan Vall looked at Dirzed in some surprise. Hadron Dalla's Assassin nodded.

"He's entitled to do that, Lord Virzal; the Assassins' code provides for such changes of allegiance."

"Welcome, Sarnax," Verkan Vall said, hooking fingers with him. "I hope we'll all be together when this is over."

"We will be," Sarnax assured him cheerfully. "Discarnate. We won't get out of this in the body, Lord Virzal."

A submachine-gun hammered from above, the bullets lashing the fountain pool; the water actually steamed, so great was their velocity.

"All right!" a voice called down. "Assassins' Truce is over!"

Another burst of automatic fire smashed out the lights at the bottom of the ascent tube. Dirzed and Dalla struggled across the room, pushing a heavy steel cabinet between them; Verkan Vall, who was holding Olirzon's submachine-gun, moved aside to allow them to drop it on edge in the open doorway, then wedged the door half-shut against it. Sarnax came over, bringing rifles, hunting pistols, and ammunition.

"What's the situation, up there?" Verkan Vall asked him. "What force have they, and why did they turn against us?"

"Lord Virzal!" Dirzed objected, scandalized. "You have no right to ask Sarnax to betray confidences!"

Sarnax spat against the door. "In the face of Jirzyn of Starpha!" he

said. "And in the face of his *zortan* mother, and of his father, whoever he was! Dirzed, do not talk foolishly; one does not speak of betraying betrayers." He turned to Verkan Vall. "They have three menservants of the family of Starpha; your Assassin, Olirzon, discarnated the other three. There is one of Prince Jirzyn's poor relations, named Girzad. There are three other men, Volitionalist precinct workers, who came with Girzad, and four Assassins, the three who were here, and one who came with Girzad. Eleven, against the three of us."

"The four of us, Sarnax," Dalla corrected. She had buckled on a hunting pistol, and had a light deer rifle under her arm.

Something moved at the bottom of the descent tube. Verkan Vall gave it a short burst, though it was probably only a dummy, dropped to draw fire.

"The four of us, Lady Dallona," Sarnax agreed. "As to your other Assassin, the one who stayed in the airboat, I don't know how he fared. You see, about twenty minutes ago, this Girzad arrived in an airboat, with an Assassin and these three Volitionalist workers. Erarno and I were at the top of the dome when he came in. He told us that he had orders from Prince Jirzyn to discarnate the Lady Dallona and Dirzed at once. Tarnod, the gamekeeper"—Sarnax spat ceremoniously against the door again—"told him you were here, and that Marnik was one of your men. He was going to shoot

Marnik at once, but Erarno and I and his Assassin stopped him. We warned Marnik about the change in the situation, according to the code, expecting Marnik to go down here and join you. Instead, he lifted the airboat, zoomed over Girzad's boat, and let go a rocket blast, setting Girzad's boat on fire. Well, that was a hostile act, so we all fired after him. We must have hit something, because the boat went down, trailing smoke, about ten miles away. Girzad got another airboat out of the hangar and he and his Assassin started after your man. About that time, your Assassin, Olirzon—happy reincarnation to him—came up, and the Starpha servants fired at him, and he fired back and discarnated two of them, and then jumped down the descent tube. One of the servants jumped after him; I found his body at the bottom when I came down to warn you formally. You know what happened after that."

"But why did Prince Jirzyn order our discarnation?" Dalla wanted to know. "Was it to blame the Statisticians with it?"

Sarnax, about to answer, broke off suddenly and began firing at the opening of the ascent tube with a hunting pistol.

"I got him," he said, in a pleased tone. "That was Erarno; he was always playing tricks with the tubes, climbing down against negative gravity and up against positive gravity. His body will float up to the top— Why, Lady Dallona, that was only part of it. You didn't hear

about the big scandal, on the news-cast, then?"

"We didn't have it on. What scandal?"

Sarnax laughed. "Oh, the very father and family-head of all scandals! You ought to know about it, because you started it; that's why Prince Jirzyn wants you out of the body— You devised a process by which people could give themselves memory-recalls of previous reincarnations, didn't you? And distributed apparatus to do it with? And gave one set to young Tarnov, the son of Lord Tirzov of Fastor?"

Dalla nodded. Sarnax continued:

"Well, last evening, Tarnox of Fastor used his recall outfit, and what do you think? It seems that thirty years ago, in his last reincarnation, he was Jirzid of Starpha, Jirzyn's older brother. Jirzid was betrothed to the Lady Annitra of Zabna. Well, his younger brother was carrying on a clandestine affair with the Lady Annitra, and he also wanted the title of Prince and family-head of Starpha. So he bribed this fellow Tarnod, whom I had the pleasure of discarnating, and who was an underservant here at the hunting lodge. Between them, they shot Jirzid during a boar hunt. An accident, of course. So Jirzyn married the Lady Annitra, and when old Prince Jarnid, his father, discarnated a year later, he succeeded to the title. And immediately, Tarnod was made head gamekeeper here."

"What did I tell you, Lord Vir-

zal? I knew that son of a *zortan* had something on Jirzyn of Starpha!" Dirzed exclaimed. "A nice family, this of Starpha!"

"Well, that's not the end of it," Sarnax continued. "This morning, Tarnov of Fastor, late Jirzid of Starpha, went before the High Court of Estates and entered suit to change his name to Jirzid of Starpha and laid claim to the title of Starpha family-head. The case has just been entered, so there's been no hearing, but there's the blazes of an argument among all the nobles about it—some are claiming that the individuality doesn't change from one reincarnation to the next, and others claiming that property and titles should pass along the line of physical descent, no matter what individuality has reincarnated into what body. They're the ones who want the Lady Dallona discarnated and her discoveries suppressed. And there's talk about revising the entire system of estate-ownership and estate-inheritance. Oh, it's an utter obscenity of a business!"

"This," Verkan Vall told Dalla, "is something we will not emphasize when we get home." That was as close as he dared come to it, but she caught his meaning. The working of major changes in outtime social structures was not viewed with approval by the Paratime Commission on the First Level. "If we get home," he added. Then an idea occurred to him.

"Dirzed, Sarnax; this place must have been used by the leaders of the

Volitionalists for top-level conferences. Is there a secret passage anywhere?"

Sarnax shook his head. "Not from here. There is one, on the floor above, but they control it. And even if there were one down here, they would be guarding the outlet."

"That's what I was counting on. I'd hoped to simulate an escape that way, and then make a rush up the regular tubes." Verkan Vall shrugged. "I suppose Marnik's our only chance. I hope he got away safely."

"He was going for help? I was surprised that an Assassin would desert his client; I should have thought of that," Sarnax said. "Well, even if he got down carnate, and if Girzad didn't catch him, he'd still be afoot ten miles from the nearest city unit. That gives us a little chance—about one in a thousand."

"Is there any way they can get at us, except by those tubes?" Dalla asked.

"They could cut a hole in the floor, or burn one through," Sarnax replied. "They have plenty of thermite. They could detonate a charge of explosives over our heads, or clear out of the dome and drop one down the well. They could use lethal gas or radiodust, but their Assassins wouldn't permit such illegal methods. Or they could shoot sleep-gas down at us, and then come down and cut our throats at their leisure."

"We'll have to get out of this room, then," Verkan Vall decided. "They know, we've barricaded our-

selves in here; this is where they'll attack. So we'll patrol the perimeter of the well; we'll be out of danger from above if we keep close to the wall. And we'll inspect all the rooms on this floor for evidence of cutting through from above."

Sarnax nodded. "That's sense, Lord Virzal. How about the lifter tubes?"

"We'll have to barricade them. Sarnax, you and Dirzed know the layout of this place better than the Lady Dallona or I; suppose you two check the rooms, while we cover the tubes and the well," Verkan Vall directed. "Come on, now."

They pushed the door wide-open and went out past the cabinet. Hugging the wall, they began a slow circuit of the well, Verkan Vall in the lead with the submachine-gun, then Sarnax and Dirzed, the former with a heavy boar-rifle and the latter with a hunting pistol in each hand, and Hadron Dalla brought up in the rear with her rifle. It was she who noticed a movement along the rim of the balcony above and snapped a shot at it; there was a crash above, and a shower of glass and plastic and metal fragments rattled on the pavement of the court. Somebody had been trying to lower a scanner or a visiplat-pickup, or something of the sort; the exact nature of the instrument was not evident from the wreckage Dalla's bullet had made of it.

The rooms Dirzed and Sarnax entered were all quiet; nobody

seemed to be attempting to cut through the ceiling, fifteen feet above. They dragged furniture from a couple of rooms, blocking the openings of the lifter tubes, and continued around the well until they had reached the gun room again.

Dirzed suggested that they move some of the weapons and ammunition stored there to Prince Jirzyn's private apartment, halfway around to the lifter tubes, so that another place of refuge would be stocked with munitions in event of their being driven from the gun room.

Leaving him on guard outside, Verkan Vall, Dalla and Sarnax entered the gun room and began gathering weapons and boxes of ammunition. Dalla finished packing her game bag with the recorded data and notes of her experiments. Verkan Vall selected four more of the heavy hunting pistols, more accurate than his shoulder-holster weapon or the dead Olirzon's belt arm, and capable of either full- or semi-automatic fire. Sarnax chose a couple more boar rifles. Dalla slung her bag of recorded notes, and another bag of ammunition, and secured another deer rifle. They carried this accumulation of munitions to the private apartments of Prince Jirzyn, dumping everything in the middle of the drawing room, except the bag of notes, from which Dalla refused to separate herself.

"Maybe we'd better put some stuff over in one of the rooms on the other side of the well," Dirzed suggested. "They haven't really begun to come

after us; when they do, we'll probably be attacked from two or three directions at once."

They returned to the gun room, casting anxious glances at the edge of the balcony above and at the barricade they had erected across the openings to the lifter tubes. Verkan Vall was not satisfied with this last; it looked to him as though they had provided a breastwork for somebody to fire on them from, more than anything else.

He was about to step around the cabinet which partially blocked the gun-room door when he glanced up, and saw a six-foot circle on the ceiling turning slowly brown. There was a smell of scorched plastic. He grabbed Sarnax by the arm and pointed.

"Thermite," the Assassin whispered. "The ceiling's got six inches of spaceship-insulation between it and the floor above; it'll take them a few minutes to burn through it." He stooped and pushed on the barricade, shoving it into the room. "Keep back; they'll probably drop a grenade or so through, first, before they jump down. If we're quick, we can get a couple of them."

Dirzed and Sarnax crouched, one at either side of the door, with weapons ready. Verkan Vall and Dalla had been ordered, rather peremptorily, to stay behind them; in a place of danger, an Assassin was obliged to shield his client. Verkan Vall, unable to see what was going on inside the room, kept his eyes and his gun muzzle on the barricade

across the openings to the lifter tubes, the erection of which he was now regretting as a major tactical error.

Inside the gun room, there was a sudden crash, as the circle of thermite burned through and a section of ceiling dropped out and hit the floor. Instantly, Dirzed flung himself back against Verkan Vall, and there was a tremendous explosion inside, followed by another and another. A second or so passed, then Dirzed, leaning around the corner of the door, began firing rapidly into the room. From the other side of the door, Sarnax began blazing away with his rifle. Verkan Vall kept his position, covering the lifter tubes.

Suddenly, from behind the barricade, a blue-white gun flash leaped into being, and a pistol banged. He sprayed the opening between a couch and a section of bookcase from whence it had come, releasing his trigger as the gun rose with the recoil, squeezing and releasing and squeezing again. Then he jumped to his feet.

"Come on, the other place; hurry!" he ordered.

Sarnax swore in exasperation. "Help me with her, Dirzed!" he implored.

Verkan Vall turned his head, to see the two Assassins drag Dalla to her feet and hustle her away from the gun room; she was quite senseless, and they had to drag her between them. Verkan Vall gave a quick glance into the gun room; two of the Starpha servants and a man in

rather flashy civil dress were lying on the floor, where they had been shot as they had jumped down from above. He saw a movement at the edge of the irregular, smoking, hole in the ceiling, and gave it a short burst; then fired another at the exit from the descent tube. Then he took to his heels and followed the Assassins and Hadron Dalla into Prince Jirzyn's apartment.

As he ran through the open door, the Assassins were letting Dalla down into a chair; they instantly threw themselves into the work of barricading the doorway so as to provide cover and at the same time allow them to fire out into the central well.

For an instant, as he bent over her, he thought Dalla had been killed, an assumption justified by his knowledge of the deadliness of Akor-Neb bullets. Then he saw her eyelids flicker. A moment later, he had the explanation of her escape. The bullet had hit the game bag at her side; it was full of spools of metal tape, in metal cases, and notes in written form, pyrographed upon sheets of plastic ring-fastened into metal binders. Because of their extreme velocity, Akor-Neb bullets were sure killers when they struck animal tissue, but for the same reason, they had very poor penetration on hard objects. The alloy-steel tape, and the steel spools and spool cases, and the notebook binders, had been enough to shatter the little bullet into tiny splinters of magnesium-nickel

alloy, and the stout leather back of the game bag had stopped all of these. But the impact, even distributed as it had been through the contents of the bag, had been enough to knock the girl unconscious.

He found a bottle of some sort of brandy and a glass on a serving table nearby and poured her a drink, holding it to her lips. She spluttered over the first mouthful, then took the glass from him and sipped the rest.

"What happened?" she asked. "I thought those bullets were sure death."

"Your notes. The bullet hit the bag. Are you all right, now?"

She finished the brandy. "I think so." She put a hand into the game bag and brought out a snarled and tangled mess of steel tape. "Oh, blast! That stuff was important; all the records on the preliminary auto-recall experiments." She shrugged. "Well, it wouldn't have been worth much more if I'd stopped that bullet, myself." She slipped the strap over her shoulder and started to rise.

As she did, a bedlam of firing broke out, both from the two Assassins at the door and from outside. They both hit the floor and crawled out of line of the partly-open door; Verkan Vall recovered his submachine-gun, which he had set down beside Dalla's chair. Sarnax was firing with his rifle at some target in the direction of the lifter tubes; Dirzed lay slumped over the barricade, and one glance at his crumpled figure was enough to tell Verkan Vall that he was dead.



"You fill magazines for us," he told Dalla, then crawled to Dirzed's place at the door. "What happened, Sarnax?"

"They shoved over the barricade at the lifter tubes and came out into the well. I got a couple, they got Dirzed, and now they're holed up in rooms all around the circle. They—Aah!" He fired three shots, quickly, around the edge of the door. "That stopped that." The Assassin crouched to insert a fresh magazine into his rifle.

Verkan Vall risked one eye around the corner of the doorway, and as he did, there was a red flash and a dull roar, unlike the blue

flashes and sharp cracking reports of the pistols and rifles, from the doorway of the gun room. He wondered, for a split second, if it might be one of the fowling pieces he had seen there, and then something whizzed past his head and exploded with a soft *plop* behind him. Turning, he saw a pool of gray vapor beginning to spread in the middle of the room. Dalla must have got a breath of it, for she was slumped over the chair from which she had just risen.

Dropping the submachine-gun and gulping a lungful of fresh air from outside, Verkan Vall rushed to her, caught her by the heels, and dragged her into Prince Jirzyn's bedroom,

beyond. Leaving her in the middle of the floor, he took another deep breath and returned to the drawing room, where Sarnax was already overcome by the sleep-gas.

He saw the serving table from which he had got the brandy, and dragged it over to the bedroom door, overturning it and laying it across the doorway, its legs in the air. Like most Akor-Neb serving tables, it had a gravity-counteraction unit under it; he set this for double minus-gravitation and snapped it on. As it was now above the inverted table, the table did not rise, but a tendril of sleep-gas, curling toward it, bent upward and drifted away from the doorway. Satisfied that he had made a temporary barrier against the sleep-gas, Verkan-Vall secured Dalla's hunting pistol and spare magazines and lay down at the bedroom door.

For some time, there was silence outside. Then the besiegers evidently decided that the sleep-gas attack had been a success. An Assassin, wearing a gas mask and carrying a sub-machine-gun, appeared in the doorway, and behind him came a tall man in a tan tunic, similarly masked. They stepped into the room and looked around.

Knowing that he would be shooting over a two hundred percent negative gravitation-field, Verkan-Vall aimed for the Assassin's belt-buckle and squeezed. The bullet caught him in the throat. Evidently the bullet had not only been lifted in the negative gravitation, but lifted

point-first and deflected upward. He held his front sight just above the other man's knee, and hit him in the chest.

As he fired, he saw a wisp of gas come sliding around the edge of the inverted table. There was silence outside, and for an instant, he was tempted to abandon his post and go to the bathroom, back of the bedroom, for wet towels to improvise a mask. Then, when he tried to crawl backward, he could not. There was an impression of distant shouting which turned to a roaring sound in his head. He tried to lift his pistol, but it slipped from his fingers.

When consciousness returned, he was lying on his back, and something cold and rubbery was pressing into his face. He raised his arms to fight off whatever it was, and opened his eyes, to find that he was staring directly at the red oval and winged bullet of the Society of Assassins. A hand caught his wrist as he reached for the small pistol under his arm. The pressure on his face eased.

"It's all right, Lord Virzal," a voice came to him. "Assassins' Truce!"

He nodded stupidly and repeated the words. "Assassins' Truce; I won't shoot. What happened?"

Then he sat up and looked around. Prince Jirzyn's bedchamber was full of Assassins. Dalla, recovering from her touch of sleep-gas, was sitting groggily in a chair, while five or six of them fussed around her, getting

in each others' way, handing her drinks, chaffing her wrists, holding damp cloths on her brow. That was standard procedure, when any group of males thought Dalla needed any help. Another Assassin, beside the bed, was putting away an oxygen-mask outfit, and the Assassin who had prevented Verkan Vall from drawing his pistol was his own follower, Marnik. And Klarnood, the Assassin-President, was sitting on the foot of the bed, smoking one of Prince Jirzyn's monogrammed and crested cigarettes critically.

Verkan Vall looked at Marnik, and then at Klarnood, and back to Marnik.

"You got through," he said. "Good work, Marnik; I thought they'd downed you."

"They did; I had to crash-land in the woods. I went about a mile on foot, and then I found a man and woman and two children, hiding in one of these little log rain-shelters. They had an airboat, a good one. It seemed that rioting had broken out in the city unit where they lived, and they'd taken to the woods till things quieted down again. I offered them Assassins' protection if they'd take me to Assassins' Hall, and they did."

"By luck, I was in when Marnik arrived," Klarnood took over. "We brought three boatloads of men, and came here at once. Just as we got here, two boatloads of Starpha dependents arrived; they tried to give us an argument, and we discarnated the lot of them. Then we came down

here, crying Assassins' Truce. One of the Starpha Assassins, Kirzol, was still carnate; he told us what had been going on." The President-General's face became grim. "You know, I take a rather poor view of Prince Jirzyn's procedure in this matter, not to mention that of his underlings. I'll have to speak to him about this. Now, how about you and the Lady Dallona? What do you intend doing?"

"We're getting out of here," Verkan Vall said. "I'd like air transport and protection as far as Ghamma, to the establishment of the family of Zorda. Brarnend of Zorda has a private space yacht; he'll get us to Venus."

Klarnood gave a sigh of obvious relief. "I'll have you and the Lady Dallona airborne and off for Ghamma as soon as you wish," he promised. "I will, frankly, be delighted to see the last of both of you. The Lady Dallona has started a fire here at Darshi that won't burn-out in a half-century, and who knows what it may consume." He was interrupted by a heaving shock that made the underground dome dwelling shake like a light airboat in turbulence. Even eighty feet under the ground, they could hear a continued crashing roar. It was an appreciable interval before the sound and the shock ceased.

For an instant, there was silence, and then an excited bedlam of shouting broke from the Assassins in the room. Klarnood's face was frozen in horror.

"That was a fission bomb!" he exclaimed. "The first one that has been exploded on this planet in hostility in a thousand years!" He turned to Verkan Vall. "If you feel well enough to walk, Lord Virzal, come with us. I must see what's happened."

They hurried from the room and went streaming up the ascent tube to the top of the dome. About forty miles away, to the south, Verkan Vall saw the sinister thing that he had seen on so many other timelines, in so many other paratime sectors—a great pillar of varicolored fire-shot smoke, rising to a mushroom head fifty thousand feet above.

"Well, that's it," Klarnood said sadly. "That is civil war."

"May I make a suggestion, Assassin-President?" Verkan Vall asked. "I understand that Assassins' Truce is binding even upon non-Assassins; is that correct?"

"Well, not exactly; it's generally kept by such non-Assassins as want to remain in their present reincarnations; though."

"That's what I meant. Well, suppose you declare a general, planet-wide Assassins' Truce in this political war, and make the leaders of both parties responsible for keeping it. Publish lists of the top two or three thousand Statisticalists and Volition-alists, starting with Mirzark of Bashad and Prince Jirzyn of Starpha, and inform them that they will be assassinated, in order, if the fighting doesn't cease."

"Well!" A smile grew on Klar-

nood's face. "Lord Virzal, my thanks; a good suggestion. I'll try it. And furthermore, I'll withdraw all Assassin protection permanently from anybody involved in political activity, and forbid any Assassin to accept any retainer connected with political factionalism. It's about time our members stopped discarnating each other in these political squabbles." He pointed to the three airboats drawn up on the top of the dome; speedy black craft, bearing the red oval and winged bullet. "Take your choice, Lord Virzal. I'll lend you a couple of my men, and you'll be in Ghamma in three hours." He hooked fingers and clapped shoulders with Verkan Vall, bent over Dalla's hand. "I still like you, Lord Virzal, and I have seldom met a more charming lady than you, Lady Dallona. But I sincerely hope I never see either of you again."

The ship for Dhergabar was driving north and west; at seventy thousand feet, it was still daylight, but the world below was wrapping itself in darkness. In the big visiscreens, which served in lieu of the windows which could never have withstood the pressure and friction heat of the ship's speed, the sun was sliding out of sight over the horizon to port. Verkan Vall and Dalla sat together, watching the blazing western sky—the sky of their own First Level time-line.

"I blame myself terribly, Vall," Dalla was saying. "And I didn't mean' any of them the least harm."

All I was interested in was learning the facts. I know, that sounds like, 'I didn't know it was loaded,' but—"

"It sounds to me like those Fourth Level Europeo-American Sector physicists who are giving themselves guilt-complexes because they designed an atomic bomb," Verkan Vall replied. "All you were interested in was learning the facts. Well, as a scientist, that's all you're supposed to be interested in. You don't have to worry about any social or political implications. People have to learn to live with newly-discovered facts; if they don't, they die of them."

"But, Vall; that sounds dreadfully irresponsible—"

"Does it? You're worrying about the results of your reincarnation memory-recall discoveries, the shootings and riotings and the bombing we saw." He touched the pommel of Olirzon's knife, which he still wore. "You're no more guilty of that than the man who forged this blade is guilty of the death of Marnark of Bashad; if he'd never lived, I'd have killed Marnark with some other knife somebody else made. And what's more, you can't know the results of your discoveries. All you can see is a thin film of events on the surface of an immediate situation, so you can't say whether the long-term results will be beneficial or calamitous."

"Take this Fourth Level Europeo-American atomic bomb, for example. I choose that because we both know that sector, but I could think of a

hundred other examples in other paratime areas. Those people, because of deforestation, bad agricultural methods and general mismanagement, are eroding away their arable soil at an alarming rate. At the same time, they are breeding like rabbits. In other words, each successive generation has less and less food to divide among more and more people, and, for inherited traditional and superstitious reasons, they refuse to adopt any rational program of birth-control and population-limitation.

"But, fortunately, they now have the atomic bomb, and they are developing radioactive poisons, weapons of mass-effect. And their racial, nationalistic and ideological conflicts are rapidly reaching the explosion point. A series of all-out atomic wars is just what that sector needs, to bring their population down to their world's carrying capacity; in a century or so, the inventors of the atomic bomb will be hailed as the saviors of their species."

"But how about my work on the Akor-Neb Sector?" Dalla asked. "It seems that my memory-recall technique is more explosive than any fission bomb. I've laid the train for a century-long reign of anarchy!"

"I doubt that; I think Klarnood will take hold, now that he has committed himself to it. You know, in spite of his sanguinary profession, he's the nearest thing to a real man of good will I've found on that sector. And here's something else you haven't considered. Our own First Level life expectancy is from four to

five hundred years. That's the main reason why we've accomplished as much as we have. We have, individually, time to accomplish things. On the Akor-Neb Sector, a scientist or artist or scholar or statesman will grow senile and die before he's as old as either of us. But now, a young student of twenty or so can take one of your auto-recall treatments and immediately have available all the knowledge and experience gained in four or five previous lives. He can start where he left off in his last reincarnation. In other words, you've made those people time-binders, individually as well as racially. Isn't that worth the temporary discarnation of a lot of ward-healers and plug-uglies, or even a few decent types like Dirzed and Olirzon? If it isn't, I don't know what scales of values you're using."

"Vall!" Dalla's eyes glowed with enthusiasm. "I never thought of that! And you said, 'temporary discarnation.' That's just what it is. Dirzed and Olirzon and the others aren't dead; they're just waiting, discarnate, between physical lives. You know, in the sacred writings of one of the Fourth Level peoples it is stated: 'Death is the last enemy.' By proving that death is just a cyclic condition of continued individual existence, these people have conquered their last enemy."

"Last enemy but one," Verkan Vall corrected. "They still have one enemy to go, an enemy within themselves. Call it semantic confusion, or illogic, or incomprehension, or just

plain stupidity. Like Klarnood, stymied by verbal objections to something labeled 'political intervention.' He'd never have consented to use the power of his Society if he hadn't been shocked out of his inhibitions by that nuclear bomb. Or the Statisticians, trying to create a classless order of society through a political program which would only result in universal servitude to an omnipotent government. Or the Volitionalist nobles, trying to preserve their hereditary feudal privileges, and now they can't even agree on a definition of the term 'hereditary.' Might they not recover all the silly prejudices of their past lives, along with the knowledge and wisdom?"

"But . . . I thought you said—" Dalla was puzzled, a little hurt.

Verkan Vall's arm squeezed around her waist, and he laughed comfortably.

"You see? Any sort of result is possible, good or bad. So don't blame yourself in advance for something you can't possibly estimate." An idea occurred to him, and he straightened in the seat. "Tell you what; if you people at Rhogom Foundation get the problem of discarnate paratime transposition licked by then, let's you and I go back to the Akor-Neb Sector in about a hundred years and see what sort of a mess those people have made of things."

"A hundred years; that would be Year Twenty-Two of the next millennium. It's a date, Vall; we'll do it."

They bent to light their cigarettes

together at his lighter. When they raised their heads again and got the flame glare out of their eyes, the sky was purple-black, dusted with

stars, and dead ahead, spilling up over the horizon, was a golden glow—the lights of Dhergabar and home.

THE END

IN TIMES TO COME

First off, the massive—and I do mean massive!—response to the dianetics article leads me to assure you that further articles on the subject will be appearing. Naturally, the first few will be by Hubbard, and will explore further aspects of dianetics. The analytical mind functions, for instance, and measurement of personality-value are two aspects to be discussed. As other people, working with the book, develop further data, articles from other sources—either pro or con—will be published.

Incidentally, I regret that there was a delay in the publication of the book. The original schedule was set up so that our publication of the article would be simultaneous with the publication of the book. The book was delayed nearly a month by the addition of nearly fifty thousand words of new material, practically a complete book itself, and also the price of the book had to be increased from three to four dollars as a consequence. The change came too late to be caught in our already-cast front-of-the-book pages, but was caught in the advertisement in the back of the book.

However, for next month we have two long novelettes, by two long-time favorites. "The Lion and the Lamb," by Fritz Leiber, has the cover spot—cover's by Miller, incidentally—and Lawrence O'Donnell is in with "Paradise Street." Since the human problems in each of those two are human, philosophical problems, though of totally different nature, I can't do more than say that a good author usually produces something worth reading. They have.

On the other hand, William T. Powers is a new author, but his short piece, "Meteor," is something to start a reputation with. Highly complex, highly integrated technical culture patterns can be remarkably upset by a bit of cosmic dust—not because of where it is, but because nobody knows where it is!

THE EDITOR.

GIT ALONG!

BY L. SPRAGUE DE CAMP

It was an excellent idea, even if it wasn't his own—but lack of ownership never bothered a confidence man. And a dude ranch for the reptilian Osirians would be a mine...

Illustrated by Cartier

Darius Mehmed Koshay looked at the fat slob across the table, and then at the prettier though hardly rounder wall clock. In three hours the ship from Earth would arrive at the Uranus spaceport, bearing, nine chances out of ten, a warrant for the arrest of Darius Koshay.

Three hours in which somehow to convert the fat slob into a means of escape from the Solar System. Escape to where his talents would be appreciated instead of thwarted. More to the point, escape to where Earthly writs did not run—at least not for such minor errors as an over-enthusiastic prospectus for a new company to raise Ganeshan doodle-birds on Mars.

It was a gruesome choice between

the clock and Moritz Gloppenheimer, who was not only fat but also a loud-mouthed vulgar bounder. Gloppenheimer, in fact, must have been the man for whom the English word "slob" had been invented. He had dirt under his nails—Koshay stole a look at his own fastidiously-manicured digits—and an unpleasant breath.

And most unkindest cut of all, the slob had hit upon a scheme that Koshay wished he had thought of. In fact Koshay was sure he *would* have thought of it if given a little time. Therefore the scheme by rights belonged to him—

"Go on, pal," said Koshay with an ingratiating smile, like the smile that caused a certain legendary heroine

GIT ALONG!

to remark: "What big teeth you have, Grandma!"

The encouragement was hardly necessary, for Gloppenheimer was a nonstop talker. The problem was to turn him off once he got started—like a Scotch faucet in reverse:

"... and so, when I saw this advertisement for a chenuine American dude ranch in the Bawarian Alps, I said to myself: why can not you use the idea use, my boy? You have the cinema dealing with the American wild West many times seen. You can a month at this ranch to pick up the tricks of the trade shpend, and away you go!"

"Where to?" said Koshay, with just the right mixture of interest and nonchalance to encourage his acquaintance without rousing his suspicions.

"To a not too-distant, humanoid-inhabitants-possessing, to-Earthly-private-enterprises-hospitable planet. So, I inwestigate. What find I? Mars and Wenus are for this purpose useless; Mars had not enough air and its people are too insectlike, while Wenus is too hot and has no intelligent inhabitants at all. The most promising planet from my point of wiew is Osiris in the Procyonic System. The people are reptilian but highly civilized, friendly, with an extreme capitalistic economy, and to Earthly fads and fashions giwen. To Osiris then shall I, as soon as I can my materials collect, go."

"What materials?" asked Koshay, lighting a cigarette.

"Ah. A cowboy suit of the old

American type. I know all this costumery a choke is; not for centuries have the Americans by such picturesque methods their cattle reared. I have once a ranch in Texas seen—like a laboratory, with the cowboys walking about in white coats, carrying test tubes and taking their animals' temperatures. But there is in this dude-ranch business still money to be gained. It even gives a *dzudzu ranchi* in Japan, I am told.

"But to get back to my materials: A rope or lasso. An ancient single-action rewolver-type pistol, such as one sees in museums. Textbooks and romantic nowels dealing with the wild West. A guitar, bancho, or similar song-accompanying instrument in the evening by the campfire to play. I wisit the ranch; I buy the materials—"

"How's the monetary exchange between the Procyonic System and ours?" said Koshay.

Gloppenheimer belched loudly. "Wide open! One can Osirian money to World Federation dollars limitlessly conwert. Of course one must first a partner or shponsor find. It is a rule for strange planets, a native partner to get, and one's own operations in the background to keep. Otherwise some day arises a character crying: 'The Earthman exploits us; tear the monster to pieces!'"

"Have you got all this stuff with you?"

"Yes, yes. Oh, waiter!" barked Gloppenheimer. "Bring another round. At once, you undershtand?"



Koshay smiled. "Put it on my bill," he added softly. A plan was beginning to form which, if successful, would well repay him for treating the oaf from his dwindling cash.

Three rounds later Gloppenheimer showed a tendency to drop his head on his forearms and go to sleep. Koshay said:

"Let me help you back to your room, Herr Gloppenheimer."

"Wery goot," mumbled Gloppenheimer. "A true friend. Remind me to set my alarm; my ship goes soon. *Ja*, I should not so much drinken. My third wife always said—" And the slob began to blubber, presumably over the memory of his third wife.

They zigzagged through the passageways, ricocheting from one bare

bulkhead to the other like animated billiard balls until, they reached Gloppenheimer's compartment. This lay two doors from Koshay's own room in the transient section of this underground rabbit warren. (Neptune and Pluto had similar spaceports; Uranus was at this time the transfer-point to the Procyonic and Sirian systems because it alone happened to be on the right side of the Solar System.)

Gloppenheimer flopped onto his bunk and began to snore like a sawmill almost before his head hit the pillow.

When he had satisfied himself that Gloppenheimer could not be roused even by severe shaking, Koshay went through the man's papers and effects. He took Gloppenheimer's keys from his pocket and opened the

trunk standing upright by the door. There hung the cowboy outfit and its accessories. Gloppenheimer's ordinary clothes lay in his suitcase. This suitcase, about the size of Koshay's own, was covered by an almost identical fabric. A piece of luck! Allah was evidently going to see to it that Koshay got his just due.

Koshay examined Gloppenheimer's passport for some minutes.

Finally he tiptoed back to his own compartment, picked up his own suitcase, and looked cautiously out of his door. The room between his and Gloppenheimer's was occupied by an eight-legged native of Isis who looked like the result of an incredible miscegenation between an elephant and a dachshund. As the Isidian normally kept his door closed to enjoy a raised air pressure like that of his own planet, he was unlikely to burst out suddenly. Still, you couldn't be too careful.

He listened. From the Isidian's room, muffled by the door, came the faint *tonk-tonk* of the occupant's phonograph; Isidian music, Koshay knew, was made by a lot of Isidians holding little hammers in their trunks and hitting pieces of wood of various sizes and shapes with them. The effect was ultra-Cuban, and not much improved by the background of Gloppenheimer's snores.

Koshay carried his suitcase swiftly to Gloppenheimer's room and, after making sure that Gloppenheimer was still somnolent, opened it. Out of a false bottom came an assortment of pens, ink bottles,

stamps, engraving tools, and other equipment not usually carried by honest travelers. Out also came several passports with Koshay's fingerprints and photograph, but without the passport-holder's name.

He stamped the name "Moritz Wolfgang Gloppenheimer" in the appropriate places so that it looked like typescript. Then he practiced Gloppenheimer's signature a few times on a sheet of stationery and signed the document.

He looked again at Gloppenheimer's passport. If he could only furnish Gloppenheimer with a similar passport made out to Darius Mehmed Koshay— But he lacked equipment for such a comprehensive job of forgery. He did the next best thing, which was to forge for Gloppenheimer, with his own name, a little identity-card bearing the legend, in the Brazilo-Portuguese of the spaceways:

TEMPORARY CARD

Issued on Loss of Passport

Pending Receipt of New Passport

He then took a small strip of fabric like that which covered his suitcase and ran it through a gadget that stamped "M. W. G." on it in gold letters. He picked with his nails at the initials on his own suitcase until a corner of a similar strip came up, and then tore it off altogether and glued the new strip on in place of the old. Then he glued a strip bearing the initials "D. M. K." over the initials on Gloppenheimer's suit-

case, so that unless you looked closely you would have thought that this suitcase bore Koshay's initials.

Then he checked through Gloppenheimer's clothes to make sure none of them had any initials or other marks of identity. When he finished the job he exchanged wallets with Gloppenheimer, checking all the papers, cards, tickets, and other things in both. He kept his regular passport and enough papers to identify him as Darius Koshay if necessary, packing these in the false bottom of his bag. The ticket to Osiris was especially welcome, as he did not have enough money to buy one of his own.

Koshay's pride troubled him a little during this transfer of identities, for he usually considered himself above vulgar thievery. To salve his sense of fitness he made a vague resolution to repay Gloppenheimer some day, when he could do so without personal sacrifice or inconvenience. Although he had made these resolutions before when circumstances had forced him to bend even his very pliable moral code, nothing had ever come of them.

And anyway, a man had to stand up for his rights, didn't he?

The passenger agent of the *Via-gens Interplanetarias* looked up to see a man, one of that last lot that came in from Earth on the *Antigonos*, standing before him.

"Que quer você, senhor?" asked the *fiscal*.

"Excuse me," said the man in ex-

cellent Portuguese, "but I'm Moritz Gloppenheimer, en route from Earth to Osiris, and I have Compartment 9, in the Transient Section."

(The official wondered a little at this. He seemed to remember Gloppenheimer as fat, blond, boorish, and voluble, with a strong German accent, while this fellow was slim, dark, elegant, quiet, and younger-looking. No doubt he had confused the names.)

"One of my fellow-travelers," continued Koshay, "has passed out in the corridor in front of my door. Will you take care of the poor chap?"

"Do you know who he is?" said the agent, rising.

"I know who he said he was: Darius Koshay. We were drinking in the bar when he said he felt sick and excused himself. Later in going to my room I found him."

Just then a little door behind the *fiscal* opened and the head security officer of the port came in and whispered to the agent. Both men turned eyes on Koshay. The *fiscal* said:

"A thousand thanks to you, *senhor*; it transpires that the man is wanted on Earth. A warrant just came in on the *Kepler*. Had you not told us, he might have slipped away on the outgoing *Cachoeira* before we could get the alarm out."

"*Tamates*, that reminds me!" said Koshay. "I have about fifteen minutes to get aboard the *Cachoeira* myself. *Até à vista*!"

A few minutes later two processions passed each other in the corri-

dors. One consisted of a porter trundling Glöppenheimer's trunk and Koshay's suitcase on an electric truck, and behind him Koshay ambling along with hands in pockets. The other comprised three *Viagens* policemen and a staggering, half-asleep Glöppenheimer, blubbling through his tears:

"Aber, ich bin doch nicht dieser Koshay!" (Belch.) *"Ich habe von dem Kerl niemals gehört!"*

The *Viagens* men, who probably did not understand German, paid no attention. Meanwhile Koshay blessed the prudence that had inhibited him from telling Glöppenheimer his name. What people didn't know—

Six months later—subjective time—Darius Koshay, still posing as Moritz W. Glöppenheimer, sat—or rather squatted—in conference with the three mayors of Cefef Aqh, Osiris. (The Osirians had explained to him that they used committees of three for all executive positions because they feared that one Osirian by himself might commit impulsive or sentimental acts.) They looked like small bipedal dinosaurs, a head taller than a man.

"No," he said firmly in the Sha'-akhfi tongue, in which he was becoming as fluent as one lacking Sha'-akhfi vocal organs could. "I will not form a partnership with you all. I will form a stock corporation with one of you, whichever gives me the best deal. Which shall it be?"

The three Sha'-akhfi, like three Shakespearean witches, looked un-

easily at Koshay and then at each other. Their forked tongues flicked out nervously. The one called Shishirhe, with scales covered with solid silver paint, said: "You mean whichever of us offers you the largest share of the stock?"

"Precisely," said Koshay. The Sha'-akhfi knew all about corporation finance. In fact their economy reminded visitors of the wildest days of unregulated capitalism on Earth in the late nineteenth century.

Yathasia, the one with the red-and-black pattern painted on his hide, jumped up and began pacing back and forth on his birdlike feet. "That is not how I understood it at all when I introduced you to this honorable committee. I thought we should each take a fourth, as is the custom."

Koshay said: "I am sorry if you got the wrong idea, but those are my terms. If you don't like them, I shall go hunting another trio of mayors."

"Most unfair!" cried Yathasia. "The monster is trying to set us one against the other. Let us refuse to deal with him!"

"Well?" said Koshay, looking at the other two.

Shishirhe, after some hesitation, said: "I will offer thirty percent."

"What?" cried Yathasia. "You surprise me, honorable colleague. I had thought you a person of more refined sentiments. However I will not let you have the corporation for the asking. Forty percent!"

Koshay looked towards the third

of the trio, Fessahen, the one with the blue-green-and-orange pattern.

The latter waved his claws in the gesture of negation. "I am not in on this, having too many interests already. You, Shishirhe?"

"Forty-five," said Shishirhe."

"Forty-nine," hissed Yathasia.

"Fifty," said Shishirhe.

"Fifty-two," said Yathasia, his shrillness suggesting rage.

Fessahen observed: "Are you mad, Yathasia? That will give the Earthman control of the corporation!"

"I know," said Yathasia, "but our laws will protect my interest, and he knows how to run the business better than I in any case."

"Fifty-five," said Shishirhe.

(Koshay all the while was desperately translating the numbers, which they gave in their own octonary number-system, into his own decimal system. Their "percents" were actually sixty-fourths, and instead of "fifty percent" Shishirhe had said "forty" and meant "thirty-two.")

Yathasia hesitated, then picked up his brief case and threw it through the window. *Crash!*

"I have been grossly betrayed and insulted!" he shrieked in a voice like a calliope on the down-grade, hopping about in his fury. "I could never do business with a cold, calculating schemer like you, Mr. Gloppenheimer! Not only are you without a spark of sentiment, but worse, you do not even appear ashamed of the fact! And I am ashamed of you other

two for not backing me up! You are as bad as the monster! Good day, honorable sirs!"

Fessahen said: "I apologize for my colleague, Mr. Gloppenheimer. He is excitable. Not but that you gave him some cause to feel provoked. If you will excuse me, I will leave you two to work out the details of your deal. I have an engagement to inspect our new sewage-disposal plant."

"Will you step this way?" said Shishirhe. He thrust aside the heavy leather curtain in one of the doorways that led out of the conference room. Osirians did not build doors, no doubt for fear of catching the long tails that stuck out behind them to balance their bodies.

Koshay, tired of squatting, was glad to find a sort of hassock in Shishirhe's office on which he could sit.

"First," he said, "I shall need a sizable tract of land."

"That can be furnished," said Shishirhe. "I control a large piece a few *sfsifi* beyond the limits of Cefef Aqh. What else?"

"I need an introduction to makers of textiles who can duplicate the ranch clothes I brought from Earth—with such modifications as are necessary to fit the Sha'akhfi shape."

"I think that can be done, despite the fact that we never wrap ourselves in pieces of curtain as you Earthmen do. However, we have skilled workers."

"And finally, does your law provide any sort of monopoly for the

inventor or introducer of new ideas? The kind of thing we Earthmen call a patent."

"I know what you mean. We do have such an exclusive license for all new types of business, good for one year."

Koshay was a little disappointed by the shortness of the period until he remembered that an Osirian year equaled half a dozen years on Earth.

A year later, Earth time, Darius Koshay sat in his ranch house, waiting for his dudes to return from their three-day camping trip to the Fyassen'ic Waterfall. He was a little concerned; it had been the first such trip on which he had not gone with them, and he hoped Haqhisae the head wrangler could handle them. He'd have gone except that he'd been a little lame from the scratch he'd go the day before in the swimming pool. A friend of one of the dudes had come out with a half-grown son, and had urged Koshay to give the creature a swimming lesson, something never before heard of on this comparatively dry planet. And the infant had got panicky and kicked out with its hind claws.

All too well he remembered that horrible time when that no-good cowboy Sifirhash insulted the daughter of that astronomy professor—or rather of that family group of which the astronomy professor was one of the husbands. (In the multiple Sha'akhfi families nobody ever knew which of the adults were the actual biological parents of

which offspring.) However, the Sha'akhfi, at least in this province, were fussier in some respects about such matters than Earthmen. There was one consolation: He, personally, couldn't get into any trouble of that sort with these amiable if impulsive reptiles.

Or could he? There was Afasiè, the niece of one of the Inspectors of the Province, to whom Shishirhe had introduced him. Since she had such important relatives it behooved him to be nice to her, with the result that she had practically taken up a permanent residence at the ranch. He had been glad of an excuse to stay home from this camping trip in order to get away from her for once.

The sound of an Osirian automobile caused him to look up from his highball. The bare little wheeled platform with its hand-rails and levers drew up in front of the door of the ranch house. The tame lhaehe chained in the yard in front of the house gave a whistle of recognition, and Koshay's partner Shishirhe came in.

"Hello, partner," said the latter, doffing a ten-gallon hat and scaling it across the room, where it settled over one of the horns of the skull of the sassihh nailed to the wall. Shishirhe also wore a colored handkerchief around his neck, but had drawn the line at crowding his clawed feet into a pair of embroidered Western high-heeled boots with jingly spurs such as Koshay and most of his dudes wore.

"Hello, yourself," said Koshay.

"Have a highball. How are the accounts?"

"Thank you," said Shishirhe, mixing a highball in one of the native drinking-vessels resembling a long-spouted oil can. "The accounts are doing well. We shall be out of debt in another score of days."

Koshay beamed at the thought of lovely money at last rolling in. "Any more trouble with the professor?"

"Not a bit. After that cowboy of ours was wedded to his daughter, the professor used influence to have the fellow made an assistant in the Physical Education Department. She has acquired two more husbands and a co-wife since then, and if the first clutch of eggs arrives ahead of schedule, nobody will be so discourteous as to mention the fact. How are you making out with little Afasiè?"

"Too well, if anything," said Koshay, and told of his troubles with that adhesive young female.

Shishirhe wagged his tongue in the Osirian equivalent of a grin. "If the idea were not too revolting to contemplate, one would almost think that she had— Well, anyway, you should get a wife of your own species, Gloppenheimer. That is, if you Earthmen recognize the sacred sentiment of matrimony."

"Some do," said Koshay. "And I manage. I have friends among the human colony in Cefef Aqh."

"By the way, it looks as though we should soon have competition of a sort."

Koshay sat up suddenly. "What sort?"

"Another Earthman arrived recently and went into business with my fellow-mayor, Yathasia. His name is"—the Sha'akhfi struggled with unfamiliar sounds—"Sarius Khoshay."

"What?" Koshay almost leaped up to protest that a vile impostor was taking his name in vain, when it occurred to him that he was doing the same thing. "Is this Koshay a fat fellow with yellow hair?"

"That is right."

"What sort of business is he starting?"

"Something called the Cefef Aqh Hunt Club. I do not know the details, though apparently it does not infringe our patent."

Koshay thought: Must keep track of this guy, who'll be after my blood. He must have beaten the rap I cooked up for him and set out after me, taking my name.

Shishirhe said: "If you will excuse me, I will take a dip in the pool."

"Are you going to try to swim at last?" asked Koshay.

"You mean go in over my head? Horrors, no! Such an outlandish sport is all very well for the young. By the way, there are those in Cefef Aqh who do not like your introduction of this strange sport to our land. They say the water washes off our body paint, and that it is not decent for us to mix unpainted with those outside our families. However, it is nothing serious—" and he

squirted the rest of his drink into his open mouth and went out.

Koshay refilled his glass and brooded over it until his meditations were interrupted by the sound of galloping, as the dudes poured up to the ranch house on their 'aheahei. These were beasts somewhere between large long-legged lizards and small brontosauri which the Sha'akhfi had ridden back in their pre-mechanical age.

Koshay had collected a herd of 'aheahei for his "horses", while for "cattle" he used the efaefan, a great horned reptile something like an Earthly triceratops, which the Sha'akhfi reared for food. Little by little he had introduced the methods of an Earthly dude ranch. The Sha'akhfi, however, had balked at branding—said it was cruel, and efaefan should continue to be marked as before, by stenciling.

The dudes crowded into the ranch house, hissing the story of their wonderful trip. The shortest of the females bustled up to Koshay, her chaps of efaefan-hide flapping. It was Afasiè, who gushed:

"Oh, dear Mr. Gloppenheimer"—she said "Lhaffenhaimen"—"we had such a marvelous time, but we missed you so!" She pulled off her big hat, which had been held in place on her crest by an elastic chin strap. "Had I but known, I should have planned to stay here at the ranch house with you! And this evening may we have another square dance? The last was delightful, except that we got mixed up and went

bumping into one another. This time why do you not let Haqhisae call the numbers while you dance with us? You never have, and I am sure you are very good at it. Would you consider me bold and unmaidenly if I asked you to be my partner? It will make the other girls simply slobber with jealousy! After all I am the only one of them who does not tower over you. You poor dear Earthman, it must give you a dreadful feeling of inferiority, between your short stature and your horrible soft pink skin. But there, I should not remind you of your shortcomings, should I? And then afterwards you can get out your guitar and sing us that wonderful song about 'Git along, little dogies.' By the way, if the singer is supposed to be driving cattle, as you told us, why does he speak of 'dogies', which I always thought to be small domestic animals on your planet used for pets instead of food?"

For several days life at the ranch ran smoothly, save that a dude was gored by a bull efaefan whom he had, in the manner of dudes, foolishly and wantonly provoked. Koshay was planning a roundup for the amusement of the dudes—an easy day's ride out to watch his cowboys work and back. (He wondered whether he ought not to try to introduce an element into the proceedings corresponding to rustlers or hostile Indians, but gave it up, as too complicated. Still, Haquisae would look remarkable in a feathered war bon-



net.

Afasiè hung around bothering him. When he tried to send her on rides she said:

"Oh, but you are so much more fascinating, dear Mr. Gloppenheimer! Tell me more about the Earth. Ah, that my uncle would send me on a tour of the Solar System, like that which my fourth cousin Ahhas took last year! But being an honest politician he cannot afford it—"

The gruesome thought that the creature was in love with him oppressed Koshay more and more. If such were the case, he'd better sell out and beat it!

But where to? That warrant was still out for him in the Solar System, and he couldn't get to the Centaurine group, where he had good contacts,

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without stopping at at least one of the Solar planets. For the Osirian space-line did not run ships beyond Sol in that direction, and even the *Viagens Interplanetarias* did not run direct service from the Procyon-Sirius group to the Centaurine group. Furthermore these trips were so costly that he'd land as bare as an Osirian's hide, without a decent stake.

Then how about the other galactic directions? Sirius IX had a race about as humanoid as the Sha'akhfi, but an antlike culture with a rigid communistic economy; no place for an enterpriser like himself.

He asked Afasiè: "Are you coming to the roundup tomorrow?"

"You are going, are you not?"

"Yes," he said.

"Then I will most certainly go. I

would not miss the sight of your roping and shooting. Where did you learn those arts?"

"Oh, I learned to rope on Vishnu, among the Dzlieri, and I learned to shoot when I was a kid on my native Earth. But this old gun is worn more for atmosphere than looks; compared to a modern gun it's so inaccurate that you might as well hit your victim over the head with it."

"May I see how it works?"

"Sure. You pull back this-thing with your thumb, and sight through this little notch. Watch out, she's—"

Bang! The Colt leaped like a bucking 'aheahea in the Sha'akhfa's hand and shot out a tongue of yellow flame. Koshay could have sworn he felt the wind of the bullet. He snatched the pistol back.

"Now look at that hole in the roof!" he said. "Young lady, don't monkey with machinery you don't understand. You might have killed one of us."

"I am so sorry, Mr. Gloppenheimer, but I did not know its battery was charged. What can I do? I will reshingle your roof myself. Give me your lovely boots that I may shine them."

Koshay refrained with effort from grinding his teeth. "The most useful thing you can do is to run along and let me alone. I am working up the next order for supplies."

Sulkily she went.

The party rode out to the scene of the roundup, brave in pseudo-Western finery. Most of the dudes

dismounted while Koshay, still astride his 'aheahea, directed operations. Afasiè insisted upon riding beside him, the wind whipping the brim of her ten-gallon hat. As he bossed his reptilian wranglers, Koshay privately reflected that this was no way to rear efaefin for commercial purposes—chivvying them about this way must work hundreds of kilos off them.

The herd was finally bullied into a solid mass. The bulls took station around it in a circle, horns pointing outwards. Now if they could only get them moving in the right direction—A strange sound came over the hills—the silvery notes of a horn. The scaly cowpokes looked this way and that.

Then a reptile scuttled over the brow of the nearest rise and raced through the scattered dudes, who leaped up with a shrill hiss. It was a theyasfa, the small wild relative of the lhaëhe, over a meter long and looking like a lizard with big pointed ears.

Koshay, twisting in his saddle to see, heard Afasiè's voice: "Rope him, Mr. Gloppenheimer!"

Good idea, thought Koshay, provided his roping was good enough. He adjusted the loop in his lasso and turned his mount. The big rowels of his spurs dug into the leathery flanks of the 'aheahea, which broke into a gallop on a course converging with that of the theyasfa. Koshay leaned forward, whirling his lariat.

The loop shot out, whirling into a circle that settled around the fore-

body of the quarry. Koshay steered his mount to the other side to tighten the noose, and began to reel his rope in.

The theyasfa scrambled to its feet and began lunging wildly; one lunge carried it under the 'aheahea. As Koshay shortened his rope, the theyasfa, feeling its hindlegs pulled off the ground, snapped its jaws shut on the nearest leg of the 'aheahea.

The 'aheahea grunted and reared. Koshay, caught by surprise, fell backwards—right on top of the theyasfa.

"Yeow!" yelled Koshay, leaping up. He had come down in a sitting position, and the theyasfa had bitten him. The beast started to run again, dragging Koshay, who had retained his grip on the rope. He dug in his high heels and stopped the lunge.

Then he became aware of a growing clamor—the hiss of a pack of lhaehi, the cries of many mounted Sha'akhfi, and a human shout of: "Wiew halloo! Tally-ho! Yoicks! Yoicks!"

They poured towards him—first the lhaehi, a dozen or more. Then a 'aheahea bearing the fat form of Moritz Wolfgang Gloppenheimer, carrying a hunting horn and clad in black riding boots, white breeches, a red tailcoat, and a black silk top hat. Behind Gloppenheimer rode a score of Sha'akhfi similarly clad, except that they did without the white riding pants. (Considering their long tails it was not surprising.)

At this point Koshay's "cattle" stamped away from the ranch, de-

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spite the yells of the cowboys. The theyasfa, terrified, began to run round and round Koshay, so that the rope wrapped itself around his legs and he lost his balance and sat down. The lhaehi raced towards the theyasfa and its captor, whistling like leaky radiators.

Koshay snatched out the old revolver and yelled in English: "Get 'em back! Call 'em off or I'll shoot!"

"Let go our fox, *Schweinhund!*" bawled Gloppenheimer. "Cut your rope! Let go!"

Koshay had no time to comply, for a couple of lhaehi threw themselves upon him with fangs bared. They were scarcely a meter away when he let fly: *bang, bang!* A third shot dropped another, and the rest laid their ears back and raced away in all directions, up gullies and over hills. The theyasfa bit through Koshay's rope and scampered away likewise.

As Koshay stood up and untangled himself, Gloppenheimer rode up yelling: "You will my hunt shpoil, will you? You will my hounds slaughter, will you? You will my passport and baggage shteal, will you? Take that!"

The whip in his hand whistled and came down with a stinging crack on Koshay's shoulder. Koshay, smarting from the blow, jumped back, but a second slash stung the side of his face and carried away his cowboy hat. The whip snaked back and up for a third blow.

Bang! Without consciously mean-

ing to, Koshay fired at his assailant. Between the quick movement of the target, the fact that he shot from the hip without sighting, and the inaccuracy of the old Colt .45, he missed Gloppenheimer and buried the slug in the haunch of the man's mount. The 'aheahea bellowed and bucked, catapulting Gloppenheimer into the air.

Before the Master of the Hunt struck the ground there was a sharp crack! and Koshay's muscles jerked violently. An Osirian electrostatic gun had appeared in the hand of one of the red-coated huntsmen. A faint beam of violet light and the buzz of the ionizer, and then the piercing crack and blue flash of the discharge. The pistol flew from Koshay's hand and the world spun in front of him.

He came to sitting with his back against a tree. The young Afasiè was supporting him. The air was filled with the whistling Sha'akhfi tongue; the reptiles, in cowboy hats and silk toppers, were standing in groups and garruling. The real Gloppenheimer had fallen into a hellhiash bush which had punched him unmercifully with its knobs until he had rolled free. He got up and looked disgustingly at his smashed top hat.

"What happened?" Koshay asked Afasiè.

"Did you not recognize the other two mayors in the hunting party? Yathasia's bodyguard winged you to stop you from shooting Mr. Koshay. You will be all right."

"I hope so," muttered Koshay,

trying to move his right arm.

A Sha'akhfi came forward. In the gap in the front of his red coat Koshay recognized the paint-pattern of Fessahen, the senior mayor of Cefef Aqh. The latter said:

"Have you recovered? Good. We mayors have decided to constitute a tribunal to try you on the spot."

"For what?" asked Koshay.

"For slaying your fellow-Earthman."

"But he is not dead!" cried Koshay. "Look at him!"

"That makes no difference; in Osirian law the intent is all, the degree of success nothing. Our judicial system, in case you are unfamiliar with it, gives us much latitude in trying beings from other planets. To be fair, we modify our own system as far as we can to conform to the legal concepts of the being's home world. In your case they would be those of the western United States—"

"They would not!" interrupted Koshay. "I'm a native of Istanbul, Turkey!"

"No, since your cultural pattern is that of a Western American, you will be deemed to be such. We all know the legal system prevailing there from having read Earthly novels and seen Earthly cinemas. A quick summary trial, no lawyers, and when convicted the accused is hanged to the nearest tree—"

"Hey!" said Koshay. "That's how it was centuries ago, maybe, but not now! The western United States is as civilized as any place! I know be-

cause I have been there! They have plumbing, libraries—”

“An unlikely story,” said Fessahen. “We have read and seen many accounts, and all agree on this point. Surely, if the West were as civilized as you say, there would be some indication of the fact in your Earthly literature.”

“Shishirhe!” said Koshay. “Do something!”

Shishirhe, who had ridden out with the dudes, spread his claws. “I have already opposed this proceeding, but I am outvoted.”

“If you are ready,” said Fessahen, “we—”

“I am not ready,” yelled Koshay, struggling to his feet. “I shall appeal to the Earthly ambassador! And why aren’t you trying the other man, too? He started it!”

“One thing at a time. When we have disposed of you we shall take up the case of Mr. Koshay. Of course if you have been destroyed by then it is unlikely he will be convicted. Will you act with decorum, or must we bind and gag you? This honorable court is now in session and all spectators are warned to keep order. Spread out, you people. Mr. Koshay”—he indicated Gloppenheimer—“as the prosecution’s main witness, you shall squat there.”

Koshay looked around. His pistol had been taken away, he was surrounded, and even the friendly Afasiè had disappeared. The other Sha’akhfi seemed neither friendly nor hostile; just curious. You

couldn’t tell from the expressionless scaly faces what was going on in those mercurial minds.

The trial took a couple of Earthly hours, in the course of which the whole story of Koshay’s theft of Gloppenheimer’s name and effects came out.

Fessahen said: “The trial is over. Honorable Shishirhe, how do you vote?”

“Not guilty,” said Koshay’s partner.

“Honorable Yathasia, how say you?”

“Guilty!” said Gloppenheimer’s partner.

“I, too, vote guilty,” said Fessahen. “We must teach these creatures that wild West barbarism is not tolerated on our planet.

“Therefore, Gloppenheimer . . . I mean Koshay . . . I sentence you to be hanged forthwith by the neck to a suitable branch of this qhaffaseh tree until you are dead. I believe that in the wild West it is customary to seat the culprit on his mount with the rope about his neck, and stimulate the animal, causing the beast to move away leaving the felon dangling. It will be sentimentally appropriate to do it that way, and will furthermore remind the prisoner of his native planet during his last minutes. As an even more delicate touch of sentiment, let us use his own rope.”

All the Sha-akhfi cheered. Koshay made as if to break for freedom, but they grabbed him and tied his hands.

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"Ha, ha!" said Ludwig. "I laugh! I knew you were born to be hung the moment I saw you, you shcoundrel! And because you have so kindly in my name the title to the majority stock of your ranch made out, I may be able to establish ownership to it. Ha."

Koshay said: "Turn me loose long enough to sock that *sfasha*, won't you?"

"No," said Fessahen, though several Sha'akhfi murmured approval of the idea. They boosted Koshay astride an 'aheahea, tied his rope around his neck, and tossed the other end over a branch. One of them belayed the loose end.

Shishirhe said: "Farewell, partner; I grieve that your sojourn ended thus. Would I could help you."

"You're not half so sorry as I am," said Koshay.

Fessahen said: "When I say 'go!', strike his mount. Go!"

The whip cracked, the beast jumped, and the rope pulled Koshay off its back. Since he had no long drop and since the Sha'akhfi were not experts at nooses, he was doomed to die by slow strangulation instead of by a quick breaking of the neck. He spun, kicking frantically.

So intent was the crowd that they did not even notice that an aircraft had dropped to the ground nearby, rotors whistling, and a couple of Sha'akhfi with badges around their necks and shock-guns around their middles got out. These rushed up to the tree and cut the rope, letting

the nearly unconscious Koshay fall to the ground. As the roaring in his ears lessened he felt the cord being unwound from his wrists.

Fessahen said: "Why have the Provincial Inspectors sent men to interfere with the decision of a duly constituted municipal court?"

One of the new arrivals answered: "Your court was not duly constituted, because Judge Yathasia is the plaintiff's partner and hence has an interest in the outcome. I am also told that other features of this trial constitute reversible errors as well. In any case, the case will be transferred to the Provincial Court of Appeals."

The crowd cheered this outcome even more loudly than they had the original sentence.

Koshay, feeling his neck, croaked: "How did you two get here in the nick of time?"

The provincial policeman said: "One of your dudes, Afasië, rode back to your ranch house and called her uncle, Inspector Eyaësha, on the communicator. He ordered us out to stop this proceeding, on the grounds I mentioned. Can you stand now, Earthman?"

"I think so," said Koshay.

"Stop them!" cried Fessahen, and the police leaped to do so. For Gloppenheimer had picked up a large stone and was rushing at Koshay, and Koshay had picked up a stout piece of dead branch and stood awaiting his assault, and both had manslaughter in their eyes.

Afasiè and Shishirhe visited Koshay in his cell in Cefef Aqh. The former said: "They have decided to deport both of you, dear, dear Mr. Glopp . . . I mean Mr. Koshay. My liver will be broken."

Koshay said: "There are worse fates, I suppose. Anyway, thanks for saving my worthless life."

"It was nothing. Ah, were your spirit in the body of a Sha'akhfa instead of in that of a hideous monster — But I speak folly. It can never be." She leaned forward, flicked out her forked tongue, and touched his cheek in the Osirian kiss. "Farewell! I go before emotion strips me of my last maidenly reticence!"

Koshay watched her go with some relief. Shishirhe said: "Poor girl! Such sweet sentiment; just like that Earthly fairytale of Beauty and the Beast. Now as for you, partner, you

will be shipped out tomorrow on Number 36 for Neptune."

"How about the money from the ranch? Do I get any?"

"I am sorry, but your share will be confiscated as a fine by the Province."

"Oh, well," said Koshay. "As long as I never see that slob Gloppenheimer again — I suppose he feels the same about me. In fact the worst punishment you could give us would be to put us in the same room —"

"Oh-oh," said Shishirhe. "I regret that is just what will happen: Number 36 has but one compartment for non-Osirian passengers, and you two will be confined to it for the duration of your trip. But do not look so upset. It will be over in but half one of your Earthly years, subjective time. May you have a pleasant voyage!"

THE END

The one constant thing in the Universe is change. Astounding SCIENCE FICTION operates on that principle. So — be prepared for a change, starting this fall! But it won't be a change in policy. We still want the best, most mature stories of tomorrow men of today can write!

The Editor.

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A PINCH OF CULTURE

BY BERNARD I. KAHN

Logic is a system of coherent development of a given system of postulates. Logic is, therefore, a universal-thing. But the postulates — man, can they be wild, woolly, and dangerous things! And if you think these postulates are farfetched — see Dr. Kahn's letter in Brass Tacks!

Illustrated by Cartier

The disease of defeat corrupted his sleep. For the first time he knew the feeling of impending failure. With arms twisted uncomfortably beneath his head, Captain Nord Corbett peered up at the hooded, green-lighted instrument panel jutting from the bulkhead, stared at the nervous dials until his eyes ached; feeling already the thin, cruel knives of potential error, probable mistake and concomitant catastrophe lance through his shrinking confidence.

Thirty-six days now they had been decelerating and if his astrogration was precise, his math accurate to the fifth decimal, in four hours, plus or minus one, at—he looked at the clock again—06:57.36 they should break from their melanoid investment and be within one hun-

dred light-minutes of Ermes VI.

And execute Operation Deliverance!

He writhed on his bunk, grinning wryly as memory again unfolded the top secret orders. By all the gods of Space they were comprehensive enough. Some senior clerk in the office of the Chief of Spatial Operations had permitted his imagination an amazingly, bizarre freedom. Fragments of terse sentences cascaded across his mind:

“... you will assume command of the exploring cruiser *Dellar*: EC 77B.

“... take course to Ermes VI, Sun 9, Cytex D and when one hundred parsecs out from Earth open sealed directives inclosed herewith and execute.”



He had dutifully opened the sealed directives and received the shock of his life. The first six paragraphs had covered the routine duties of any commanding officer on independent duty; the need for acting with urgency and secrecy so that no hint of his objective might be compromised. "... therefore directed and required to touch at no planet and are prohibited to break from high-space drive until approximating the orbit of *Ermès*." He wrenched his mind from such orders, recalling how he had sweated over the astrogation tables. He knew few captains in the Spatial Service would have made the calculations personally. They would have turned the co-ordinates of desired position over to

a staff of professional astrogators, junior officers, still damp from the academy, reeking with celestial mechanics. He winced at his compulsive, inherent integrity which made it impossible to deviate an angstrom from the orders.

He lit a cigarette, thoughts coiling morosely over the concise phrases and their unwritten implications:

"... then required to pay your respects to the Arcador of *Ermès*; at which time you will demand from his supremacy the immediate release of the members of Earth's Primary Commission. You may threaten severance of diplomatic, social and scientific relations."

He was then "requested, required and directed" to do his utmost to

understand the sudden and inexplicable reason for the hostile attitude of the Ermesians to Earth.

He was cautioned against expressing any overt act which might lead to war and that if force did become necessary "... under no circumstances will annihilatory weapons be used on Ermes."

Spatial Intelligence had fallen flat on its desks. Nothing was said about the Ermesians, their form of government, character, nature, society, culture or scientific achievements. One sentence was the focus of his foreboding mood: "... long had spatial travel to the nearer planets of the Near Suns; and are known to possess at least two vessels of size and offensive elements of firepower comparable to a Terrestrial Explorer."

The last paragraph left him with tingling anger: "... after termination of this Operation, you will pursue course to rendezvous with Exploring Fleet III and report to Grand Admiral S. E. Leeward."

It was probably an afterthought on the part of some intelligence clerk, he thought bitterly, but they had included an Ermesian word and scribe bank and instantaneous voculator capable of handling ten conversations at one time.

A cruiser with four hundred men assigned an operation that could be too much for a dual task force.

And failure would under no circumstances be accepted! His career would be wrecked; the jeweled hats sitting on his court-martial would curtly remind him that others had

been up against essentially the same type of odds. That if he had not had the potentiality for success he would never have been entrusted with command in the first place. Failure to release the Commission, failure to understand the breakdown of relations, failure to win the approval of the Ermesians and make trade again a possibility, failure to avoid a fight, or if they did fight: failure to win—any of these would mean loss of reputation, of ever again having a command; forever having to face his fellow officers as a man inferior to them.

Or perhaps he would never come back!

Four hundred men against a billion! Good odds, he grinned to himself. *So what he thought with returning optimism, let's see how bad my astrogation is. The boss of Ermes might be a good duck and talk turkey if I know any good stories.*

He puffed at a cigarette, watching the clock and listening to the incoherent whisper of the ship talk to itself. The delicate groan of bulkheads expanding to temperature change; the muted whisper of the hull responding to space; the distant complaining clang of a tool striking a deck plate. Now and then the whole ship seemed to shudder as if protesting its mission.

A soft moist wind, drifted through the ventilators, plucked at the green curtains, brought with it the sweet odor of wet piney woods and the distant, blue-green Earth.

He put aside the thought of dressing and going out on the bridge. In a voyage of seventeen months without planeting he was well aware the officers and men were by now keenly alert to his likes and dislikes; and his habits were hallowed by the traditions likely to accumulate during a voyage of such incredible length.

Coming on the bridge before his customary 0600 would make every man in the command aware of his tension.

In spite of his long career, it never ceased to amaze him—the sensitivity of a crew to the aura of confidence radiating from their captain. How quickly they measured all their officers; sensed quickly the vast difference between optimistic self-assurance and fatuous, flippant gamblers.

He looked at the clock. 04:57.

This was it. Forty-five hours from now they would either be successful and starting back for home or—He put all the impōnderables, the ifs and maybes from his mind; suppressing them with all the vigor that went with his resolute character.

Nord slid from the bunk; dressed himself with quick fluid motions, stepped out on his bridge.

The officer-of-the-deck was writing in the rough log. At the click of the gallery door he looked up, saw the captain. Perplexed, incredulous eyes jerked to the clock. He struggled to his feet, frantically snapping his blouse.

"Attention," he bellowed to the

watch. "Captain's on his bridge."

"Good morning," Nord greeted affably, "carry on."

"Morning, sir."

Corbett rested his elbows on the balustrade, looked down and out over the terraced decks. He always thought of himself as being in the topmost gallery of a theater at moments like this. Below and extending out to the bulbous bow were the bridges which co-ordinated the intricate cruiser. It was as familiar as the back of his hand yet it never failed to invoke a thrill.

He punched the executive officer's intercom. There was a long pause, the plate flared into life and Commander Maynard's sleep-swollen face peered out at him.

"Maynard, would you please come to my bridge?" He made it sound like a friendly request.

"Aye aye, sir."

Nord was aware of a keen scrutiny from his executive officer. He knew that internally Maynard boiled with questions. For seventeen months the astrogation deck had been locked and he was the only one who knew where they were bound. And he was rather proud of the executive officer for refraining from asking questions.

Maynard touched his forehead with index finger. Nord waved him to a seat, poured a cup of coffee from a gleaming cannister, pushed cigarettes across his desk. While the executive lit up, he punched the button which dropped, transparent, sound-proof

portieres between his bridge and activities below.

He lighted a cigarette, watched smoke drift lazily towards the ventilators. "Commander Maynard, here are the orders under which I spaced."

Maynard quickly leafed through the thin metallic sheets, whistled at the immensity of the Operation outlined for them. "At least," he managed a tight grin, "we don't have to take the planet." There was derision in voice at the unorthodox orders. He looked into Corbett's impassive face.

Nord nodded. "Well there is no reason for our discussing the Department's reasons. We might," he pointed out the Bureau's strategy clearly, "act as an excuse. Ernie welcomed our explorers five years ago."

"We left a Commission there. A freighter came by some months later and was warned peremptorily away. Apparently the Commission failed somewhere. Now it's obvious Ernie doesn't *have* to have diplomatic relations with Earth, but their imprisonment of the members of the Commission is an insult. And that is no reason for conquest. If we get bumped out, then the Empire has an excuse for sending a punitive task force—" He stopped. "And don't discuss this!"

Maynard nodded gloomily. "But why us?"

Corbett shrugged his shoulders, grinned wryly. "Probably as the ship least likely to be missed."

He clicked the switches of the scribe banks. "General Quarters at 0600. You may announce breakthrough at"—he offered a swift fervent prayer to the mathematical gods and designers of the astrograding instruments that his calculations would be correct—"06:57.36 plus or minus one hour."

Maynard couldn't help but show his admiration for such confidence. Such pinpoint accuracy after seventeen months in high-drive was the never-realized dream of all astrogrators.

"Yes, sir. Anything else, sir?"

Nord shook his head. "Nothing else," he paused with deep meaning, "yet."

Corbett contemplated his breakfast with calm disfavor. They had been on dry stores for the five months and the monotony of dried and processed foods was almost painful. He was sipping coffee when he heard a wild shout from the bridge.

"Violet on the screens! Tell the Old Man! Violet on the screens! We're breaking through!"

There was the muffled surge of excitement. Everyone would be wildly euphoric at the sight of a sun, their first for seventeen months—particularly so, for it was an unknown sun. He felt the glow of excitement himself. There was not merely the imminent thrill of making accurate calculations; there was also the thought that within twenty-thirty hours he would be testing his com-

mand—himself—against that of an entire world.

He was suddenly conscious of his racing heart; he wanted to rush out on his bridge to see the breakthrough, but he restrained himself. He knew it would destroy the image of his complete imperturbability and self-confidence. The more his respect was held the better it would be for the command.

He forced himself into an attitude of complete composure, sipped his coffee in apparent unconcern, refusing the maddening desire to look at the clock.

The steward clicked his buzzing intercom. The O.D.'s glowing face shimmered on the screen. "Captain," his voice was almost ecstatic, "there's violet on the screen."

Corbett managed to take a sip of coffee before he spoke. "Yes," he simulated a calmness he was far from feeling: "Tell Commander Maynard I shall be on my bridge when I finish breakfast."

Had he gone bursting out on his bridge, he would have all but heard the crew chuckle: "The Old Man was just as excited as we. He wasn't any surer than we were." There would be the breath of doubt; the fetor of sagging discipline; hesitation or carelessness when prompt execution of orders might mean the difference between success or failure.

He took a final sip of coffee. Wiped his lips, carefully folded his napkin and with an air of complete unconcern walked out on his bridge.

The bridges were thronged with

officers; all the division leaders were jammed around the screens or watching with hypnotized eyes the slow sweep of violet over the vault of the bow. Corbett knew many captains would put such officers under hack for such display of perfectly natural behavior; but stern, dispassionate discipline can take no exception to human desires.

"What's the matter," his voice snapped them to attention. "Has no one in ship anything to do? We're breaking through. You know your orders for that by now.

"Mr. Stedman," he amplified, looking at the senior instrument officer, "turn on all screens through the ship. Let the crew see the breakthrough, too. Clark, man the astro-gation deck, it's unlocked now. Get the telescopes unlimbered, stand-by to fix our position. Robbins, tell engineering to get ready to put us in standard space drive."

The bridge burst into activity, then quieted rapidly except for the sound of restless feet on cushioned decks and the distant chatter of multiple calibrators.

Nord slid into his bridge chair, glanced at the clock, then at the brightening bow. It was 06:54. Tension mounted as the men kept looking at the screens. Maynard stood by his side, watching the clock, the screen and the captain with almost frantic urgency.

Nord felt his palms grow moist. If it would be too long now, the men would grow restive and get bitter—

like standing at battle station without the release of tension in fighting.

06:57. The second-hand dragged. Nord felt a moment of panic; had he interpolated for spatial time drift, totaled the day change, integrated the hours properly to mean sidereal time?

Maynard was breathing the seconds. "Twenty-five . . . twenty-six . . . twenty-seven—"

He wished he had never permitted the exec to announce break-through time. The bridge area was now so quiet, the tiny click of an instrument was startlingly explosive. Nord felt a moment of acute anxiety, sure the crew could hear the thud of his heart.

"... thirty-five . . . thirty-six . . . thirty-seven . . . thirty-eight—"

He was in error now. Seconds? Minutes? Hours? Or, and his mind shuddered at the thought, days.

"... forty-one . . . fort— Look! Sun!" It was almost a scream of ecstasy.

A distant yellow ball burned to his right, stars in unfamiliar patterns gleamed in the purple back-drop. He waited, cool and aloof, smothering his exultation while the crews measured and fixed their position. He waited for the chant of the astro-gation officer.

"Sun at 73°, at two o'clock, classification: AD-76ap alpha four. Directory states—this would be Sun 9 of Cytex 'D.'"

He waited for plates to fix planetary positions, hiding his tingling

impatience by lighting a cigarette.

"Astra to captain."

He clicked the intercom. "Waiting Astra."

"Planet on port bow eighty light-minutes, we're inside its orbit. From its spectrum I believe it's Ermes."

Maynard looked down at the placid captain, undisguised admiration in his shining eyes. "A remarkable bit of astro-gation, sir."

Corbett looked up. "Thank you, commander. Set a course to Ermes, order battle stations."

"Aye, aye, sir." He whirled to the bridge. "Prepare for action!"

The scream of the sirens; the clamor of the gongs set the ship into a wild flurry as the watch slid into armor; set battle lanterns; checked emergency circuits. Thick sheets of metal fanned slowly across the non-ferrous, transparent bow. Screens flared into life. Air locks hissed closed, and above all the clatter of metal was the rising whine of high energy generators coming to life.

"Ship in readiness for combat, sir; seven minutes, nine seconds."

"Very good, commander." He slid into his own armor then, watched the screen as Ermes swung on the bow screen. They would come over the capital of the planet on the day side. This was a piece of luck.

"Small ship on our lateral bow, right."

Nord's metallic, sheathed fingers fumbled with vernier adjustments, brought into sharp focus an alien craft—a wedge of gleaming metal against the purple curtain. It was

coming fast, sheer white flame, like liquid light penciled aft.

He looked down at gunnery. Ayer, offensive weapon analyst, was punching buttons on his spectrometer. He raised his armored head, voice tense with excitement. "Modified light drive. Ship appears to be completely inert. From spectral shift, it appears as if the light has taken on increased mass through apparently unknown means to me. Protuberance on its bow, may be a weapon."

Captain Corbett leaned over the balustrade. "Instrument deck, have junior instrument officer come in on six."

He swung off his helmet, pulled a dual laryngophone from his desk, unloosed his collar, latched it about his neck, adjusting the microphones about his laryngeal cartilage. He plugged the cords into the channel, refixed his helmet.

"Flexner," he looked straight into the screen at the young officer watching him, "you know how a vocolator works."

Flexner revealed his surprise. "Certainly, sir. It's an instantaneous translator; through multiple tube banks, it turns the spoken or whispered words into another language."

"Very concise. Flexner, just aft my cabin you will find a multiplex vocolator. You are now relieved of your present duties; will go there and live by that machine. Questions?"

"No, sir."

The Ermesian vessel was much closer now. A ship with a weapon this far out meant an off-world patrol. Planets not expecting trouble would have no reason for watchful expectancy. So they were expecting him, he guessed.

He turned on the excom waiting the salutation from the ship, hoped the Ermesian captain's vocabulary didn't exceed the two hundred thousand words and combinations in his vocolator. Prayed, too, that whoever had set up the word banks hadn't been flowery in his language.

"Ahoy, is that an Earth ship?"

"Yes," replied Corbett, "you may come aboard. We will open our locks."

The smaller ship, circled, flamed alongside, matched the open lock on their under port side. Nord bivalved his armor. "Maynard," he looked at the executive officer, "man the entrance deck. Set atmosphere at 840 mm; lower ship's temp to forty in—" he broke off as the vocolator blurred; unbelievably he heard: "By order of Almighty Arcador, get going. Besides mama says we can't!"

Nord blinked. He couldn't have heard *that*. He called Flexner.

"Run a fast check on the words of that last sentence: 'mama says'; vocabulary bank's gone spacey." He doubted the integrity of the machine. "I couldn't have heard that correctly."

The Ermesian ship replied and Nord realized he'd forgotten to turn off his translator microphone.

"You heard us correctly. Mama says we can't."

Flexner interposed then. "I checked the vocabulary bank. They have a sort of spitting grumble which sonics out as mama. I checked what mama might mean and this is what the spool says: 'Mama—their mother; supreme goddess; Holy Vessel of Ufuttérable Power; Ultimate Destroyer of the Male; a weapon of torture; the personification of cruelty, hate, a curse, threat or warning; or obnoxious, abominable, spiteful or angry flame.'"

"Practically a dictionary; about an all-inclusive term," Nord grunted, "odd it doesn't mean love, tenderness or personal affections."

He contemplated the blank screen wryly; wishing there was some way to see them; reach them through understanding of cultural values. They had spoken into a microphone which radioed the message to his ship, where the pulsations were turned back to sound, shunted cortical relays which found its counterparts in human speech; what he heard was correct. But what did it mean?

Verbal communication implies a mutual understanding of the nuances and multiple shades of meanings in words. Then to really communicate with this alien race he would have to be logologist, anthropologist and tactician rolled into a mama. But what kind?

"Go get lost," the Ermesian ordered; and even the vodor made his voice cold and stern and unyielding.

"Mama says get lost around the Near Suns."

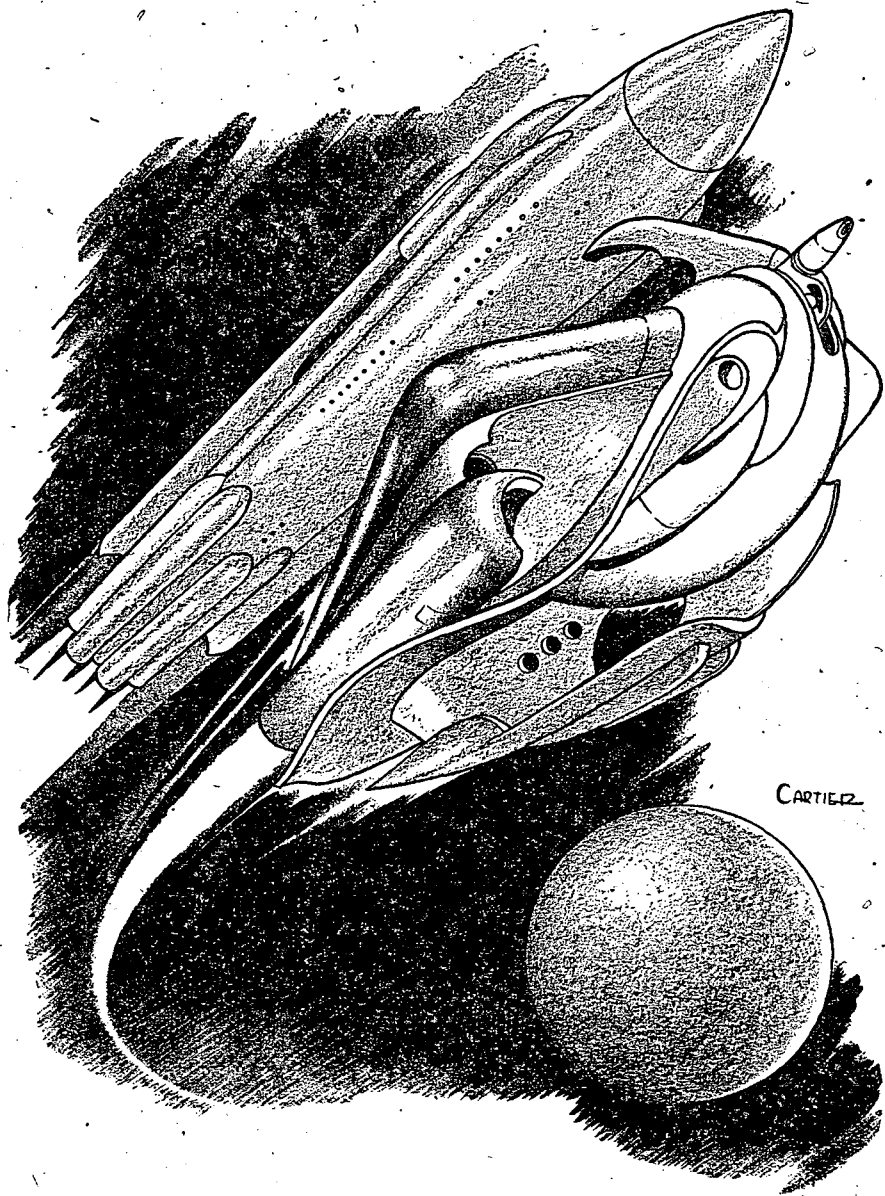
Now they really had put him on the burners.

If he argued or coaxed, they would undoubtedly get stubborn or arrogant. If he threatened them, he might end up with the whole Ermesian fleet on his hands. If he acted meek and timid, Ermes would deduce that he was anxious to avoid battle; that the People of Earth were frightened weaklings. While stupid bravado might excite their anger, make them acutely aggressive which in time would end in a long and costly war.

If his estimate was correct, then his next sentence might mean life or death! For he was up against an alien pattern of thought.

Uncertainty suspended his confidence and froze his mind. He felt suddenly cold on the inside as the arctic winds of anxiety flowed across his hands and face. He felt his palms grow moist and sweat smeared his brow.

Subconsciously he took note of the tension in the men about him. They were standing stiffly erect, close together, waiting in embarrassing silence, pretending not to see the worry of uncertainty cloud his eyes. They waited, knowing that on his decision could mean life or death; enslavement or home. They waited, armored hands fumbling with the levers and verniers of their armor trying not to watch his tormenting dubiety.



His eyes swiveled to the Ermesian vessel. It was about a hundred meters off his port bow, a gleaming stubby wedge about twenty-five meters long. Probably carried a crew of ten or fifteen with a couple of officers. Could an officer commanding such a small craft make a decision which might implicate an entire world? It almost seemed so—unless they in turn were receiving instructions from Ermes. Then the only way to reach those in authority was to prevent a final decision by a junior officer.

His mind roved over what had already been said. Mama obviously had a variety of meanings according to pitch, timbre and use in sentence structure. So far his use of the term had made some sort of sense. If, now he'd use mama in a completely confusing sense the patrol ship commander would have to go to higher authority.

And how he'd confuse them. He'd make his interpreter go psychotic trying to translate this one into good Ermesian.

"AAAAAiou, Ermesian," he forced his voice to carol, "hear me well. Chickasaw, Choctaw, Cherokee, Creek, mama sent me so we can't be beat. Yea mama's team!"

"Go now—tell those who will tell his supremacy mama sent me here to play with you. Go now else I'll mama you here before mama and everybody."

"Ahhhheeee," it sounded like a scream of agony. "We'll do. Gwaven

us. Gwaven us. A vessel of hell is thy mama."

The Ermesian craft swung away and with drivers pulsing light arced to the planet below.

Now what had he just said to them. He called Flexner. "Are you positive our interpreter is working right?"

"I'm positive, sir. I looked up 'gwaven'. It's not in our spools. 'Gwi' has something to do with surgery and also is a state of mind. I'd like to read you a note on the introductory spool."

"Go ahead."

"Well, sir; it says the words set in the scribe banks and speech spools are adapted from primers, child records and with some translation from certain texts used in higher educational institutions. Semantics of the language, cultural clarification has not been made."

"Yeah, I'd read that; it's self-evident now," Corbett agreed wryly.

He stepped to the rail of the bridge, looked down at the instrument crew. They would now have a lesson in impatient agony; it would be as hard on them as on himself. A long wait would cause anxiety in some of the men. He breathed a prayer of thanks that the senior space surgeon was a psychiatrist. He'd be needing one himself with much more of this.

The thought coiled back through his mind. Perhaps he could help.

He strode back to his desk. Punched the Medical Division. "Tell Dr. Haskell to come to the screen."

A stream of ideas flooded his mind. Against the possibility of immediate action was the more likely one of letting them wait out here. Decision crystallized. He bivalved his armor, turned on general ship intercom: "Attention in the ship. Captain speaking. All hands out of armor but stand by your battle stations. It was my hope we could planet by noon but the authorities on Ermes have to be contacted." That last was a galaxy of understatement. "We came in peace but we may have to fight to prove it. Division leaders take over."

Haskell was on the medical screen. "Yes, captain?"

"Dr. Haskell, do you know anything about anthropology?"

Haskell looked as if he were the victim of acute trigeminal neuritis. "I beg your pardon?"

"I'm serious," he understood the challenging jocularly in the medical officer's face and his voice became cold and incisive. "I could use some knowledge about Ermesian culture and psychology."

"Well," Dr. Haskell offered agreeably, a mystified look on his face, "the culture of any group is the total psychology of the individuals within that group. Find out what individuals want, hate, love and fear and you can be relatively certain his culture represents the same desires, hates, loves and fears." Regret tinged his voice, "But, captain, I don't know a thing about Ermesian culture; never even seen a picture of one of them."

"Would you come to my cabin, please?"

Haskell reread the transcript of the captain's conversation with the Ermesians; studied the sonic translation of their vocabulary then leafed through the operation orders.

"Can you discover anything in that chatter?" Nord wondered.

"Yes, I think I can see something," Haskell admitted thoughtfully. "Just what though, I'm not sure." He settled deeper in the chair across from Nord. "The attitudes and statements of an individual are a reflection of his life-history which is, of course, his accommodation to the patterns and standards traditionally handed down in his community. In cultural integration the most ill-assorted acts become characteristic of peculiar individual goals. It's necessary to understand the emotional and intellectual battery of the culture. There is nothing mysterious about it. Just like art or a new style comes into vogue and persists, it happens in all animal behavior; in war, mating, religion. It has to be considered as an articulated whole."

Haskell strode to the panel, flicked the switch, brought the planet to focus; regarded it with a curious mixture of hostility, irritation and admiration.

"Brrrr," he shivered. Then lighting a cigarette he muttered the planet's characteristics. "Two hundred million miles from their sun; thirty-two month year; forty-seven hour day; one point four gravs; atmos-

phere essentially like ours," he looked at Nord. "But, it has a mean equatorial temp of minus ten degrees centigrade with a polar temp of minus a hundred. They'd have to be a rugged race to develop a high scientific culture under those circumstances."

"Should I," Captain Corbett asked quietly, "anticipate an unprovoked attack?"

Haskell turned to the captain's desk, studied the trimensional photograph of an Ermesian native. A big creature—over seven feet tall—and heavy, with thick, short legs, hairy torso, long muscular arms terminating in broad, flat hands with multi-jointed fingers tipped with retractile, vermilion-dyed claws. Around the broad neck was a wide ruff of fur. The heavy head was almost like that of a dog's with clipped ears and long slender muzzle and slender-curved incisors. But it was the eyes that riveted attention—large and black and coldly malignant. Impossible to anticipate mercy or pity from the owners of those eyes, needlelike incisors and cruel talons.

"Looks like a cross between a dog and a cat," he forced flippancy to his voice, "with a college education. Early frustration is essential for smooth intellectual evolution. I imagine this one is a male."

He took a cigarette from his case, pressed the stud lighting it, asked with a note of perplexed wonder. "What could they have evolved from?"

He puckered his lips, eyes on the

glowing tip of his cigarette. "Should you anticipate aggression?" He rephrased the captain's question. "Well let's go over what's happened so far. They had an off-world patrol; at least from their prompt appearance it would be logical to assume so. This you pointed out meant a readiness or at least the anticipation of a punitive ship from Earth. Without listening to you they demanded you leave at once. It's obvious that the niceties of diplomacy are foreign to them from which one would infer they've never needed planetary politeness. The people on a planet always has the government it asks for; so this officer in the boat knew his leaders wouldn't be angry at him if his insult resulted in your attacking their world. We can guess they didn't care whether his actions provoked a war or not. War to man is the acme of malignant aggression but we know that different types of social order carry with them varying degrees of propensity for war.

"So war—or at least battle—would not be wholly unwelcome. Now the rulers of Ermes—their arcasors and Arcador—saw our first explorers. They have explored their spatial vicinity at least as far as the Near Suns, so they must realize our ships represented a high degree of scientific attainment; that our ships were ready for combat and represented an Empire considerably larger and more powerful than theirs.

"In spite of this knowledge what happened? We left a Commission which they promptly imprisoned and

then when our first traders came they ordered them away.

"An anthropologist studies a culture like a psychiatrist studies an individual. We ask: what are they doing? What is he doing? For no matter how illogical or insane the action it always has some meaning and stems from a source in the life-history of the individual and his culture."

Corbett watched him snub out his cigarette and light another. "Let me guess." He experienced a quick, desperate need to know. "They did two things with great meaning: First," he held up his index finger, "they imprisoned our primary Commission and rather blandly admitted it to our first freighter to come by. If we'd caused an epidemic, they would have made some explanation, perhaps apologized. But the imprisonment of the members of the Commission—their unwillingness to even speak to the freighter or us means they want absolutely no cultural contact with us. Secondly," he held up his second finger, "they are willing to risk war and their own ultimate annihilation," and at the doctor's nod of agreement he all but bellowed "Why?"

"I imagine in some way they feel we are a threat to their social, family or religious institutions." Haskell shrugged his shoulders, "I'd guess we've tromped on some sacred taboo probably insulted them by it."

Nord's mind fumbled with the problem. "What in the Name of Hermes' god," the words were squeezed from the torment of bitter,

unwelcome ignorance, "could they have done to risk a war?"

His imagination soared ahead to the tragedy of a full-scale planetary war. The greatest of all uncertainties, the most terrible, the most real, the most inescapable because it was the most certain. Uncountable millions would die, astronomical wealth would be consumed in the creation of weapons to wipe out this distant culture and the Ermesians would be doing the same. Because he was so familiar with war; so well conditioned to its negative purpose he could not refrain a shuddering: "By Cause, what could they have done?"

"The Ermesians are the only ones who could answer such a question, Captain Corbett." Haskell pointed out, added quietly "Why not ask them?"

Nord ignored the question, his fists clenched and his face became grim. "If a task force is now on the way, tries to avenge us, they'll get kicked out of this end of space. The Ermesians aren't stupid. Their patrol boat used a modified light drive; why"—his voice took on a note of angry wonder—"only our heaviest battleships use that drive today." He thought of trying to communicate with Earth—realized it would take almost a year for messages to come and go across that distance.

He looked across his desk as if studying his medical officer's lean hardness and professional competence. There was a long moment of intense silence, silence so great the

chatter of the watch came through the doors.

"I should send someone down there—a volunteer, one capable of understanding an alien culture." There was a harsh edge to his voice, then it vanished and serene confidence took its place. "Someone capable of finding out what we did—and how to handle them without risking combat."

"Of course I'll volunteer." Haskell chuckled, "You knew I would. I'm the only one who should go, who could go as a matter of fact."

Corbett grinned, then became the strict, unyielding commander again. "You understand I have no authority to order you to do this. You and I both risk a general court-martial for what the Bureau may feel—if we fail—was a needless waste of valuable personnel."

"Captain Corbett," there was a faint tracing of a smile around his mouth, his voice was composed and sure, "let's not outrage the proprieties. After all you and I are adult human beings. We are not anti-Ermesian because they neither understand us nor we them. Our responsibility goes beyond typed orders and Bureau directives—we *have* to find out what's happened before we are engineered into a war which may end in mutual annihilation."

"I was hoping, yes and anticipating," Corbett admitted bluntly, "you'd say something like that."

Haskell swung around to the desk, wrote rapidly for a moment, handed a pad to the captain. "Tell them why

you're sending me. Read 'em this and it'll probably make my landing easier to effect."

Corbett read the note, mouth tightened and his eyes hardened. "Great space, Haskell," anger rippled through him, "if I said anything like this to the Ermesians, Personnel would shoot me before I ever got off this ship. Besides it'll probably mean your imprisonment, too."

"Perhaps so, perhaps not," Haskell shrugged. "Personally I doubt it. They were frustrated enough to develop a science, to be curious enough to develop other worlds. That we might have chattel slavery might stimulate their curiosity. Why not contact the planet? I'll bet you can get right through now."

Nord punched a stud on his desk. "Communications," he asked briskly, "do you think you can contact Ermes?"

"I'm sure we can, sir. Right now we're watching a video from there; looks like a trained animal act to me." The officer grinned self-consciously, "I'll put it on your Nine."

Panel Nine flared into life and Corbett and the doctor watched with burning curiosity what might have been tragedy or comedy being enacted on the planet. He plugged in his interpreter, heard:

"... our sacred self craves not her mechanical adjustment."

"... is not the Earth our enemy; they would destroy our sacred world; we would die in the heat of our father's fire. That is why she is here—to mock our maleness. I say

the Earth must die."

"... again and again we must eat," another character broke in. "This they would take from us, our sex, our science and our refined cruelty."

The captain turned to Haskell. "You think you'll be able to make something after *that*."

It took the better part of an hour for the *Dellar* to make radio contact. Finally Corbett got through to what was apparently a senior officer in the Ermesian Empirical Guard.

He whispered to Haskell: "You asked for it," he managed a grin, "and you're certain you want to go like this." He shook the pad of paper, and at the doctor's nod he turned back to the phone. "Honored lord of your world," read Corbett, "I, Corbett the Great, Commander of this Earth ship, am speaking for our Supreme Mother. I request your indulgence. You have not seen fit to permit our landing to see and feel and know the glorious intoxication of your exquisite world, so we of Earth must depart with sad and gloomy face. I ask but one indulgence; I plead with your Arcador for one small favor: Permit my slave to land and give him a barrel—but a small barrel of your sacred water."

There was a long wait. Corbett turned to Haskell. "You wrote it. What do you think sacred water might be?"

"I haven't the slightest idea," the doctor admitted, managing a grin. "What would you do if someone

asked you for something sacred? You would go psychotic trying to figure out what he wanted, particularly if you were too proud to ask. Practically every culture has some taboos or totems which are sacred and in all cultures at some time water was sacred as was fire, blood, wine, whiskey, honey or an old piece of wood but—"

He broke off as the communicator began to growl and the interpreter replied with frigid politeness:

"The Arcador recognizes the honor Earth desires. We understand your apology for coming into our system after what you have done to us; appreciate your willingness to make amends without the further insult of your commission. Before the glories of our world you must naturally be in awe. It is fitting you should send a slave for after what Earth has done you could not face his supremacy. The Arcador is amazed that Earth would be so primitive as to have chattel slavery and he would see and give in person to this slave a quantity of his sacred water." There was a pause and the metallic voice became grim. "He will come straight down on a beam which we will send out, he will make no deviation from that beam. The moment the slave's ship leaves your vessel, Corbett the Great, you will go out to the orbit of the farthest planet, else you will receive the full force of a million guns now trained on you."

Haskell felt a moment of panic



when he brought the captain's gig to the landing platform. He had followed his instructions to the letter. A squad of Ermesians were waiting for him to open the panel. He offered a swift prayer that his portable interpreter would handle its limited vocabulary without stuttering.

Emerging from the gig he felt three things almost simultaneously: The sudden drag of his acutely increased weight; the stab of icy air flowing over unacclimated turbينات and a blow on the back of his head—a blow that sent him reeling across the metal landing deck.

He rubbed his throbbing head, adjusted the phone about his throat and reset the earpiece on his mastoid.

Ignoring their snarling growl he concentrated on mastoid audition, heard harsh, bellowing laughter.

They bubbled with laughter, they spit in each other's face, pointing to him, laughing at his weakness and surprise at the unexpected blow.

Haskell sensed almost instantly this laughter stemmed from a basic neurotic insecurity. Fear is always the parent of cruelty. They were neurotic in their fright and this very fear went back to earliest infancy. But fear of what?

"Come here, Earth Dog. I know you have an interpreter so you can understand the glorious cadence of our mellifluous language."

'Boastful monster—a gigantic crea-

ture, almost nine feet tall and regal in appearance. His ruff of hair was dyed a shimmering silver, needles of gold capped his curving incisors, a broad belt of metal circled his waist and gave him a strange exotic appearance, enhanced by a helmet of plaited metal. A grinning anthropoidal white skull *panacheed* over its crown. The others in the squad were less tall, not so gayly dressed, but their laughter was just as cruel.

Haskell climbed warily to his feet, managing a grin; feeling like a dog—a timid dog wagging its tail anticipating punishment for a gleeful bark.

He was pushed in front of the officer, looked up, fascinated by his size, but awed by the all but palpable viciousness burning in the creature's merciless, cold black eyes.

"Puny dog of a puny slave of a puny race of a puny world."

"Aye," Haskell forced an answer, "that I am."

A thick paw reached out and down, carmen-dyed, metallic-tipped talons unsheathed, ripped through his uniform jacket, swept down, cutting furrows through its cloth raking ribbons through his skin.

He was so completely surprised, so stunned by the sudden torture, that for a brief instant he let out a sharp scream of anger and pain. Every instinct told him to double his fist and strike at the leering face, looming above him, but reason made him realize almost as promptly that it would be sheer suicide. It would be like striking a giant black bear

with his bare fist.

"A male," one of them growled. "This time, at least, they didn't insult us."

The officer turned and peered inside the captain's gig. His taloned hands raked across the plastic upholstered interior; he ripped out the springs of the seats, tore out the panels; sneered at the tools, delicately fingered the dials on the instrument panel. He tasted the emergency rations; screamed with delight at the taste of the chocolate bars.

"Calories," he screamed joyfully, "calories."

Through the mists of agony and numbing chill, Haskell noted that for all his wrecking vandalism he had carefully refrained from damaging the vessel's air lock, drive mechanism or portable interpreter.

The officer spun on his short thick legs, combed a claw through his ruff, twittered archly. "I'll give you a barrel of sacred water for five thousand calories of this." He held out a smear of chocolate.

His tongue licked his long, thick fingers, then he held out his paw and the squad licked dutifully, screaming with delight at the taste of the unfamiliar food, yelping happily. "Calories, calories."

Now what in this frigid hell were calories? Or sacred water?

Probably the nearest thing the interpreter could find in its word bank to the sonic gurl he'd heard was "calories." Probably meant carbohydrates, or candy or tang. Haskell

shook his head trying to find order in the acute mental and physical trauma he had just experienced.

He felt dizzy from pain; yet relished that very pain for he knew it would keep him from submitting to shock from the numbing cold, lancing through his tattered uniform.

"I'm sure my master would make such a trade." He hoped his voice sounded servile and pleading enough to sound like a slave.

"Suppose we get it for you right now, send it back to us by rocket and never mind the Arcador."

He knew something of the fabric of their personality then. The swiftness with which they were willing to make a deal with him, their obvious disloyalty to their ruler, their complete indifference to what he might think of them or their actions implied an innate treachery—a willful deceit that must be culturally endowed.

"I must get it from the Arcador," he told them firmly.

"What would he do if you didn't?" the officer asked, a sheen of sadism darkened his eyes.

Haskell clasped his hands, invoked the sky, a smile of hope flickering through his voice. "Please do," he begged in his best attempt at a whine. "He'd kill me promptly."

"How," they leaned forward, genuinely interested, "would he eat you, tap your blood a bit at a time, starve you slowly, tear you with pincers or burn you?"

He experienced disgust at their passionate interest in torture. Tried

to think of something lurid and different, shrugged his shoulders. "With whips, it would be quick and pleasant."

They screamed with delight at this, spit in each other's face, called the other's mama unholy vessels of wrath, pushed each other about the platform, occasionally cuffed him.

"EEEiow," the officer chuckled, "you must love him very much."

Cultural values were so completely distorted, emotional valences were so weirdly out of focus that he was afraid to speak for fear he would say something completely opposite to what they might be thinking he meant.

"We'll take you to the Arcador. He's waiting, to express his love for you."

They shoved him through a wide portal, up a long ramp, down which a frigid wind whistled, and then they emerged into a broad, wide street.

A street as white as snow, as clean as a hemostat. No marks marred its painful glitter. They kicked him into the rear compartment of a wedge-shaped car which started at once with head-jerking velocity.

They whirled into a traffic-filled subterranean, express roadway. They stopped once. An acute deceleration threw him against the forward panel and again excited their cruel laughter.

In the unexplained wait he saw brilliantly lighted shops and walks filled with stately, aloof natives, and smaller, more slender, silver-haired,

elaborately costumed, imperious looking creatures whom he guessed to be the female Ermesian.

They ignored him now, snarling incomprehensible insults at the people on the walks and in other cars; they spit in each other's face and swore at the other's mother or sister.

The car started but this time he was prepared for its acute acceleration. From the whistle of the wind, and the blur of their passage he estimated their speed to be in excess of two hundred miles an hour.

They stopped in a vast, underground parking area. A gigantic cavern which he guessed held over a hundred thousand cars. They jerked him from the car, carried him to a swiftly moving belt which propelled them into a broad, high room.

He was shoved into an elevator which rose so swiftly he felt a transient acceleration vertigo and the pain of acutely strained ankle and pelvic ligaments.

The elevator stopped abruptly and he was pushed into a vast room. He was perched on a hard stool, curtly ordered to wait. He had a quick impression of incredible, flamboyant, flowing colors radiating from the lofty overhead, of the tracery of exquisitely designed arches, of glowing murals depicting silver-furred Ermesians in various acts, and the sudden assault of his nostrils by a thick fetid smell—like an animal warren.

Despite the languor of his chilled and aching body he concentrated all his attention on the creatures throng-

ing the vast room. He studied most, the females. Similar to males, yet different. It was their face; they lacked the razor-sharp, curving incisors. He saw a mother suckling her young; she cuffed one of them until he yowled in pain and fright; and from its dress knew it was a male.

Then the pattern of their culture folded together!

Then he knew what they were doing and why and how they might be handled.

Suddenly he experienced the impact of English shouted in his ears.

"A man. A real Earth man!"

He whirled, saw straining towards him a young, tattered dressed woman, held by a harness, leashed, at the end of which was a jeering, gold-ruffed Ermesian male officer.

He leaped to her side, his hands touching lightly at her rippling hair, trying not to see the marks of the hunted and results of studied torture on her face. He heard the cackle of Ermesian laughter, sensed the joy they got from this pain-filled meeting.

He drew her head close, ignoring their chatter, conscious only that she was shaking with horrible, twitching spasms, that her sobs were dry and crackling in her throat.

"It's all right, it's all right." He heard himself say. The little comfort he had to offer was so inadequate for the moment. "Tell me who you are? How you got here."

The Ermesian shoved them to the chair. "Wait here for his supremacy's

audience. You can watch him kill the Commission."

"Aye," Haskell forced his voice to sound like it was an unexpected pleasure. "That will be glorious and his name will resound to the ends of Earth's empire."

The Ermesian reluctantly left them, "I'd love to see you whip her, but I'll see it over and over on the screen."

Haskell felt a sudden, almost overwhelming hate for them. The Emersians were so cruelly confident, playing with them, experiencing savage delight in the torture.

Through the blur of his mind he heard her low voice.

"... then we were alone. I constantly tried to make contact with their ruler, but the men ignored me, they would cuff me about, laugh at all my protests. Oh! They're cruel." She shuddered, "For two good Earth years I was locked up while they were preparing to wipe Earth out of the sky for the insult." She looked up at him for strength to continue, tears of memoried anguish clouding her eyes.

"Three," she sobbed, "died of pneumonia, only four of us were left: Three men and me—"

"You're Joyce Latimer, leader of the Commission?" He asked gently.

"Joyce died of pneumonia. I'm Rae Sennard." Then she stared incredulously at him, seeing for the first time his tattered garments, clotted furrows across his chest, blood-shot eyes and chilled body. The glow of hope died in her eyes.

"They have you, too," she whispered dully.

"Rae," he said crisply, "we don't have time to be emotional. Tell me, what is sacred water?"

She shook her head. "I don't know. Their women talk about it, it's sacred to the men and only they can drink it, then it appears to drive them crazy. They're monsters, electronic geniuses but monsters. The things I've seen them do to each other." She shuddered at the impact of memory, bit her lips. "They are incredibly brilliant but stupid in many ways. But at the rate they're going they'll be able to drive us out of the sky in three or four more generations." She looked up at his face, forced a thin smile to the corners of her mouth, managed a flippant tone. "What a planet, it's ruined my figure." She stretched out her legs, pointed to her ankles, "Look how thick they are, now, my feet are flat and all my bones ache from the constant cold."

"How well do you know their language?"

"Not too well," she replied: "They took my interpreter away from me right after I got here. I've had enough contact with the men to understand some of their snarls. What difference does it make now?" She asked the question indifferently, "They'll make the most beautiful videos of our torture—"

"I know why, too," he surprised her by saying. "Can you do exactly what I tell you and maybe we'll get out of it?"

"I'll do anything." She was eager for guidance; listened to his curt instructions with childlike confidence.

Swiftly he told her. She sat there beside him, made only one small remonstrating: "Oh! Noooooo." She shook her head, "How silly of me to even question it." She squeezed his arm. "I doubt if they will, for you see they are not afraid of Earth, but I'll try."

"You'll have to scream and crawl all the way," he stumbled over the words.

"I'm not frightened now," she told him, "at least it's something, something to try."

A squad of Ermesians surrounded them. Haskell picked up his interpreter, joined the girl who jumped to her feet in fear.

"You're to be taken to the Arcador's chamber, slave," the officer jerked the cord on Rae's harness, "and the slave will watch your antics," he chuckled to her.

He suppressed his rising fury as they pushed him through the long, long corridor while the laughter of the Ermesians snarled in his ears.

Nord Corbett looked again at the clock, seven hours already. He should never have listened to Dr. Haskell. He had just given the Ermesians another prisoner. He looked down at his desk, forced himself to concentrate on the photographs Astra had sent down.

Under high magnification he could see innumerable ships in their sprawling space yards. They were

incredibly well prepared for any attack he might make. Before he could get one deuterium shell on the way they'd have an interceptor out and he'd have the shell detonating right in his lap.

Seven hours at battle stations anticipating an attack!

And to heighten their anxiety even more a giant battleship of unearthly design and well over a thousand meters long hovered a hundred miles off their port bow. A battleship he well knew that could blow them out of space with one salvo from its fifty-inch batteries. This long sustained tension was telling on the crew as well as on himself.

Annihilatory weapons? Corbett laughed sardonically at the memory of the curt instructions. They could readily handle anything he could bring to bear on them. They could handle the combined power of an entire striking force. The Ermesians weren't the clucks Spatial Operations thought they were.

"Captain! Captain! Your gig's coming!"

"Attention *Dellar*," Haskell's voice came through. "Tell Dr. Lenair to stand by with two units of whole blood for me with adrenosan. Tell the captain to come to the entrance lock. Urgent."

"Great Infinite Space!" Corbett shouted when he saw the medical crew wheel the doctor out of the lock. "What did they do to you?"

Haskell forced a grin to his trembling, blue lips. "They play rough down there," he chattered. He jerked

his head to the junior medical officer preparing the intravenous. "Never mind the blood now, just give me adrenosan and a drink of whiskey. No time for the blood I have a lot of talking to do."

"Take the blood now; we can wait," Corbett ordered softly.

The doctor winced at the prick of the needle in his arm, looked at the captain and shook his head gently. "No, it won't."

He swallowed a drink of whiskey. "Whew!" he shook his head again, "what a race."

His hand trembled when they handed him a lighted cigarette.

"We've got to get that Commission out of there; open their empire for trade so we can change them to be decent citizens of space."

Corbett snorted. His face twisted. "And you think we can do that. This ship against an entire world. They have a battleship standing by us right now that could destroy us in microseconds the moment we opened our gun ports."

"Not that way," Haskell grimaced. "But you can with a pinch of culture." He pushed the doctor's hand away, swung his legs over the carriage, wrapped the electric blanket around his body.

"I'm going to be didactic a moment." He took a long drag on his cigarette. "Here's some basic psychology, basic to the animal kingdom anywhere and apparently everywhere.

"The animal organism is designed by nature for the conversion of food

into heat, energy and tissue for but one reason and that is reproduction of itself.

"Any interference with those primary functions will bring on symptoms of neuroses. An overt threat of starvation or deprivation of liberty can cause mental trouble.

"Now let me tell you about the Ermesians. All this I picked up from observation and from talking with Rae Sennard the only woman survivor of the Commission."

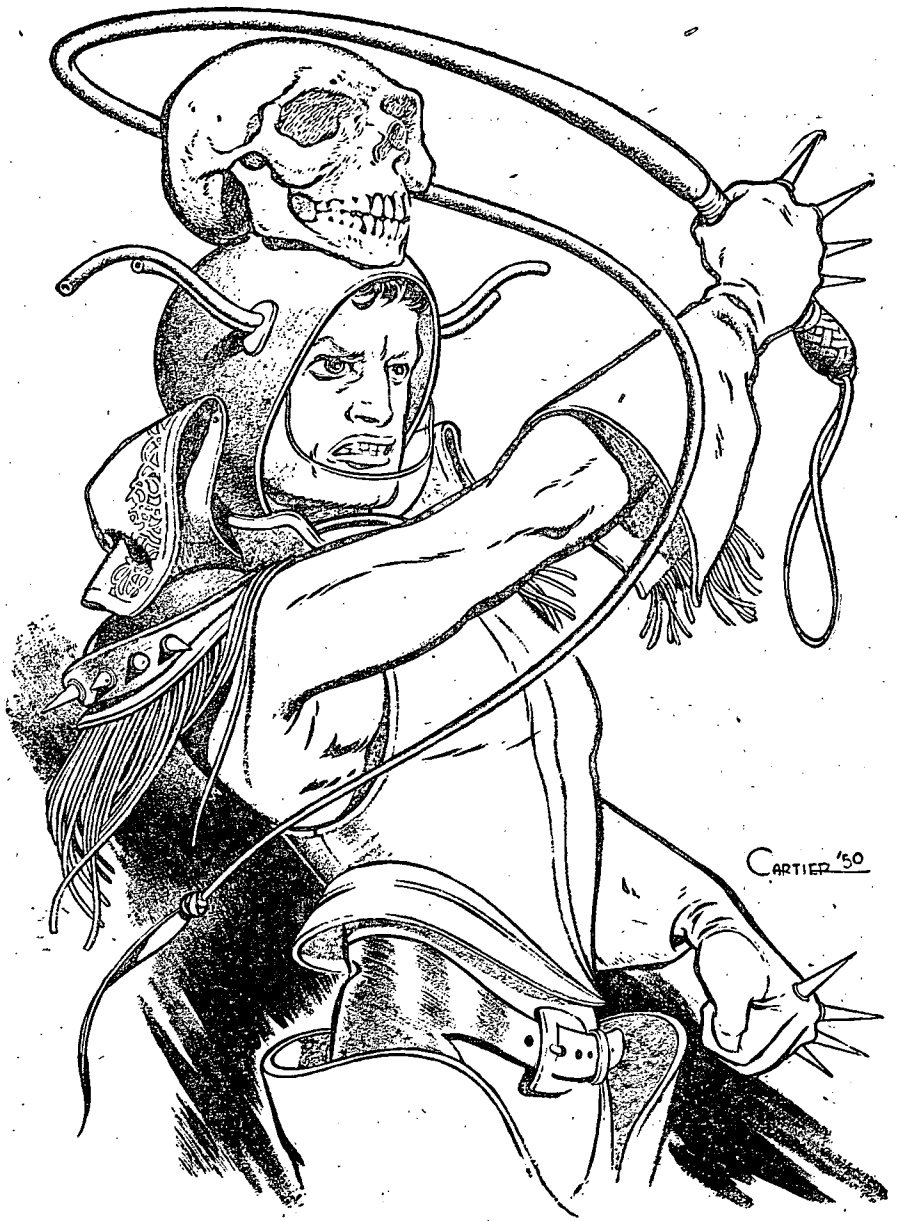
"You saw her then," Corbett said. "Couldn't she come with you?"

"She's going to be tortured unless we play it right," Haskell growled hoarsely.

An angry color spread slowly over the captain's face. He tightened the grip of his interlocking fingers; with difficulty he kept his voice under control. "Go ahead, Dr. Haskell, tell me about the Ermesians."

"They are a poor race, population excess pressed on them constantly and they are always hungry. They are dangerous and brilliant. Cannibalism is permitted to nobility. They have no respect for anything or anybody who they think might be weaker than they. They are treacherous and every male Ermesian is against every other male. They have an officer caste structure that recognizes nothing which we remotely know as integrity. They put a premium on ill-will and treachery and recognize them as outstanding virtues."

"And we would leave a commission there," Nord snapped.



"That isn't all. They do not tolerate strangers, have destroyed whole races on adjoining worlds. After the mother's death the children can never approach their father. They all but live on hate for each other and the worlds they are conquering. When they marry it merely adds to their hostility. It is a forced status for the husband is servant of his wife and takes her name. He remains a perpetual outsider. Adultery is a favorite pastime for the women, and only they can own property. Private ownership is marked by continual strife. Food is rarely sufficient. Existence is a cutthroat affair, no holds are barred and murder and torture are recognized forms of entertainment. There is, as you can guess, a terrible antagonism between the male and female. Treachery is an ethical ideal without mercy or kindness and the culture fosters extreme forms of animosity and malignancy which are minimized in most other societies, so far visited by us.

"Their frigid world has prevented the growing or development of cereals and with the evolution of their bodies they have acquired a chronic racial hunger for carbohydrates. Those cereals they do bring in are used only for the preparation of their sacred water which only the men drink. You'd never guess but it is absolute alcohol or alcohol that is almost absolute, my mouth is raw from its taste.

"This is conjecture on my part," Haskell hurried on, "but this is why I think they are like they are: You'll

recall the males have razor-sharp incisors. The females don't. The incisors grow rapidly and while the young are still suckling. The kids are born in pairs, a male and a female. When the teeth of the male start growing he bites his mother, she cuffs and beats him, he is then constantly deprived of any warmth, food or affection; the sister gets it all and the male is the perfect example of sibling hostility carried to an nth degree.

"The male curses the other's mother to show a sort of companionship. They spit in each other's face. Well, we kiss; we shake hands—it's really a sort of symbolic way of saying you hold my sword arm and I'll hold yours. We call it sinister, means left—the dagger from the left side. In many ways they do the same as we do.

"With this attitude toward each other and to females in general, with almost olympian obtuseness we left a Commission there and in charge of a female.

"A female to bargain with treacherous animals who hate any and everything that is feminine because their whole life has been highly distilled hate for their mothers. The male Ermesians were revolted and insulted. They experienced the pure hostility of their entire life concentrated on the earthly female. She was going to do to them in reality what their mothers had already done symbolically.

"What was that?" Corbett looked puzzled.

"From earliest time, their was a sexual argument on who was going to be the master of their race. The women won; the females prevented the male from uttering or expressing any will but that of hers. Remember every time as a child when he asked for food he was slapped. This chronic deprivation made him what he is today, hungry and cruel and vicious."

"But with their high scientific attainments," Corbett broke in, "can't they see their need for cereals and love and affection?"

Haskell laughed then. "An anthropologist holds a mirror up to a race, lets it see what it is doing—but the women already in command are happy, so why let an anthropologist get started? They let their males explore space, battle, torture each other; like an earthly mother lets her child play spaceman."

He shivered, looked steadily at the captain. "Well, that's my diagnosis of that culture and this is my prescription."

Nord's eyes dilated with horror, surprise and slow understanding, he shuddered once, nodded in painful agreement. "I see I've got to do it." He turned to an intercom by an instrument rack.

"Attention in the ship. Captain speaking. Secure from battle stations. First lieutenant, senior electrician and ship's cobbler report to my cabin on the double. Maynard, set course to stand off *Ermes* at one hundred miles. I want ten volunteers for the nastiest, dirtiest job a good spaceman has ever had to do."

Admiral Lor Gonda Kleinman, commander, Task Force III, looked around the staff table. His hard, blue eyes were icy. His thin lips were squeezed into a thin line. "Are there any comments?" It sounded as though he dared them to open their mouth.

Staff Intelligence continued arguing. "But, admiral, on review of Corbett's orders after Operation Deliverance he was to rendezvous with Leeward of *Exploring III*. Reviewing Corbett's psychology if the fleet wasn't there, he'd start Earthing anyway; he wouldn't keep his crew inship any longer than necessary."

The bush of Kleinman's brow met over his thin nose. "There is no exploring fleet coming in on that course, I said before. He would rendezvous here with us." His voice took on a rasping note. "In view of his failure to appear at the anticipated time we will assume that for reasons not at this time explainable or because of the innate treachery of the *Ermes* he has been destroyed. We will assume the later and proceed at once to execute Operation Avenge.

"We will go right in and attack the nucleus of their Empire. The battleship division under Sedgewick with accessory unit four, will go in on *Ermes'* orbit, circle at equator and make formal demand for information concerning Commission, Corbett's ship the *Dellar* and request apology for their action. If this is not listened to then we will further assume they desire battle in which case

you will begin. Division three point six will come in over the north pole of the planet, lead ship will remain within communicating distance. As soon as Sedgewick has opened fire you will make your sweep in. Division three point four will come on south pole and do the same. Cruiser units will remain with my main force."

He turned to the flag secretary. "Right after lunch we will run over a synthetic attack on the screens and work out any rough places before final publication of battle orders. If there are no further—"

Lancaster, chief of staff, tossed a message in front of the admiral. "Flag bridge just received this from Scouting Two."

Kleinman's face unwrinkled as he read the note. "Hold it. Scouting Two says Corbett and another ship, very likely Ermesian, are pursuing a trajectory which will coincide with us in two hours. Lancaster, you and the Intelligence officer go inship and find out what's happened and bring me back a full report. Might be a trick, too. Better order readiness for battle through the Fleet."

"What's this?" Another message was handed him. "By the rubies on my hat I'll have his command for this." He took off his cap, rubbed the red, jeweled blaze on its visor. His eyes became tiny blue gimlets in his purpling face. "Try and make something of this space hash," he stormed indignantly. He glared at the silent officers about the staff table. A tiny smile touched the cor-

ners of narrow lips as he read:

"*Dellar to Exploring III*," he peered from beneath the bush of his brows, explained, "still hasn't realized we're task. CSO didn't want him to know. Ermesians like torture and if he'd been captured they might have tortured the information out of him that a punitive force was en route. Get this inanity: 'Operation Deliverance effected. Time: Forty-seven hours. Weapons used: A pinch of culture. Casualties: None. Trade treaty signed pending approval higher authority. Ermesian freighter en route Earth with uranium carbonate. Permission requested to Earth in high drive. Corbett, commanding.'"

He glared up at Lancaster. "A pinch of culture. What does that mean? I want to see that Commission and that commanding officer."

Rae Sennard's bubbling laughter floated over the staff mess. She looked around the table with a whimsical smile, not even the admiral's grim mouth could chill the fire in her joyous gray-green eyes.

"...and Dr. Haskell has been giving me injections to atrophy my ankles. By the time we approximate Earth I'll have a figure like a human female. Why my legs," she gurgled happily, "looked like an elephant's extremities and my—"

"Miss Sennard, I am not interested in your figure," Kleinman informed her solemnly. "Please tell us what happened after you met Dr. Haskell."

"He asked me all about the Er-

mesians as we were waiting for the audience with the Arcador. When we entered, his supremacy's presence they offered a small drink of sacred water to Haskell. He took one sip—told me later it was absolute alcohol—it burned his mouth badly. In a long and regal manner he informed the Arcador that he was forbidden to drink it by order of his master. That by the laws of Earth his father's soul would be forever restless if he watched my punishment—they were going to whip me to death for being a woman, you see," she went on, memory darkening her eyes. "Then he said that there was only one person who should witness that punishment and that was Corbett the Great, that he would want to take the information home that all Earthmen could know and take joy in hearing of my pain and that because of his slave's status he couldn't.

"That stopped the old boy. He stuttered and then asked if maybe Corbett would like to drop in for tea and crumpets and while eating they would entertain themselves with me.

"Haskell thought it could be arranged and he went back to the ship.

"Well we waited and waited and waited. Then about eight hours later and just about their sunset—it takes forever for the sun to set there, too—they dragged me back to the audience chamber and I saw Captain Corbett. Admiral," she laughed softly at the memory, "if I hadn't been somewhat prepared for it, and was so frightened

at what might happen I'm sure I'd have died laughing."

"Why?" Admiral Kleinman thundered.

"At his appearance. Never in all history has anyone ever been so dressed to be received by royalty.

She lit a cigarette quickly, cupping the brief flame in her two hands. Her eyes narrowed to the screens of visual memory. "He was wearing jack boots. And spurs, long, needlelike spurs with their points aimed at the ground. Every time he took a step, sparks flashed and spit from the spurs to the floor, it burned holes all over it. He was wearing steel-gloved hands, and on the knuckles he had long spikes.

"He was wearing a battle helmet with the face plate cut away. On the crown of the helmet fixed to a metal rod was a human skull that Haskell had taken from the medical skeleton. He was the weirdest thing outside of an Ermesian male party I've ever seen.

"He had a whip in his hand. I'll tell you about that in a moment. The doors opened and he strode in; one of the Ermesians sort of lopped up to him, he took that whip and lashed it across his face so hard you could hear the crack through the whole throne room.

"Everybody got quiet then and I thought the jig was up and then he laughed when the Ermesian howled and everybody else laughed, too.

"Some spacemen had accompanied him, they were walking behind and at his side; one of them made a sort

of false step and Corbett turned and laid into him with his whip until blood came through his jacket."

"Corbett struck an Earthman in the presence of another race?" The admiral looked shocked. "I'll see he gets a court-marital for that."

"You'd better wait," Rae Sennard pointed out coldly, "see what he did and why."

"This surprised the Ermesians, they'd thought of us as puny weaklings. Then he raised his hand and pointed to the skull. He raised his hands high, screamed: 'By the skull of my hated mama, whose back I tore with this same whip,' he held out the whip then, 'I, Corbett the Great bring you greetings.' He snapped the whip and one of the men ran forward, laid down in front of him, another leaped forward and opened a chromium plated strong box and Corbett stepped on the prostrate man, and opened the box, took out a bar of chocolate and handed it to the Arcador. One of the women came forward to jerk it from the Arcador's hand and Corbett hit her with his fist. It was electrified, too, and she doubled up and fell off the dais, yowling she'd been killed or something.

"That was something they'd never seen before, didn't know quite how to take. Then they started talking about me. Corbett said he thought I should be whipped to death and here and now. That I had got the job by masquerading as a man; it was a simple thing because so many

Earthmen were weak. Then he took a big drink of alcohol. Haskell had fixed him up with some oral anaesthesia and filled his stomach with a bismuth lining—anyway he took down a quart without batting an eye. That really made their eyes turn green.

"Then he turned to me and if I hadn't known what was coming I'd have dropped dead; he looked meaner than anything I've ever seen in a human male. He screamed and swore, wished he could take me to Earth so all men could see how a female was treated for masquerading as a male. Then he lashed at me one time with his whip and blood flew all over the place.

"I fell down, wailed in my most piteous tones not to take me back to Earth. I begged the Ermesians to kill me there but not to send me back to Earth; that we had methods of real refined torture that could keep a person in agony for a long lifetime and suffering steadily.

"That was too good for the Arcador who hated all women anyway. He told Corbett to whip me from the room and take me back to Earth where I could be shown as an example. He took a bite of the candy bar and then forgot all about me. But Corbett played it right. He laid into me with that whip, I crawled all the way through the throne room, blood pouring from my back, with Corbett following, spurs sparking all the way. When I got out, two of the men picked me up and took me to his ship.

"But your back," the admiral looked bewildered. "You'd have gone into shock."

She laughed again, a low, throaty, tilting laugh. "It was a very beautifully designed whip. The handle and end was hollow. In one of Corbett's jack boots he had a unit of whole blood which passed through the end of the whip. When he squeezed the handle, blood squirted. He really did hit the Ermesian he told me."

"Afterwards he and the Arcador got together on a treaty. Now look," levity vanished from her face and she was coldly serious, "they knew you were coming and would welcome a war with Earth, but now they are not quite so sure. They respect only strength. They are a cruel and vicious race as you can gather and technological geniuses but they know nothing of how to live with each other. We'll ship them concentrated carbohydrates until their teeth fall out; in three generations they'll be a joy to work with. It only takes a pinch of culture to understand them; only a pinch to handle them."

Captain Nord Corbett stood at attention before the blue-iced eyes of Admiral Kleinman. Through the screen behind the Task Force commander he saw the wavering lights of the ships in cruising formation. The tiny blob of light at the tail of the cruisers was the *Dellar*.

"I would like permission to land on one of the planets of the Near Suns, sir," Corbett requested stiffly.

"My crew has been in ship for seventeen months, they could use planeting before we start Earthing."

The admiral's bushy brows furrowed. "A good captain always thinks of his crew first." He looked at the pile of papers, speech spools and scribe banks on his desk. "Read your report on the Ermesian operation. I think we could have handled them but war is always something to be avoided."

"Yes, sir," Nord's face crimsoned. "In this case I believe it was."

The admiral took off his hat, dropped it on the desk. Carmen flamed from its ruby-encrusted visor. He laced his fingers behind his head, leaned back, peered up at Nord's inscrutable face.

"A pinch of culture combined with a judicious blow chosen at just the right time in the right circumstances can do a lot. You and the space surgeon, ah, Dr. . . . what's-his-name?"

"Haskell, sir."

"Seem to understand how to handle the Ermesians. Any idea what sort of creature they might have evolved from?"

"Purely conjecture on the part of the doctor, admiral; he was my anthropologist on the trip. It was his recommendation I treat them as if they had evolved from a cross between a dog and cat."

"Which would be?"

He answered very stiffly, eyes directed on the admiral. "Bears. Merely treat them like circus bears tumbling in fun."

THE END

PRISON BRIGHT, PRISON DEEP

BY FRANK BELKNAP LONG

Immortality itself can carry penalties — and those can be so heavy, though not painful, as to be lethal!

Illustrated by Noyga

The spaceship settled to rest in a green and fertile valley. A dog barked furiously as rocket tubes ceased to thunder and golden pollen filled the rich purple dusk.

There were no human eyes to blink in furious disbelief, but the dog was alert, vigilant, as it went bounding toward the shining intruder. The dog went right up to the ship, settled down on its haunches, and growled.

It was a gaunt, wolflike beast with a formidable capacity for loyalty. It had once killed a man to protect its master. Now it was prepared to kill again, although its master had been dead for fifty thousand years.

A door opened in the ship, and the face of a handsome, sturdily built man in the prime of life peered out. He was smoking a pipe, and the smoke coiled up over his sandy hair

and kindly features, hazing the gleam in his eyes.

"Be careful!" Webb, the semantacist, warned, crouching just inside the opening door. "A creature so gaunt and wretched might be driven by fear to tear out a man's throat!"

"Patience!" the other said. "I have a way with dogs!"

Timothy Marden leaped to the ground as he spoke, the heavy weapon in the crook of his arm flashing the sunlight back into his eyes.

"There, Pal!" he said. "There, boy!"

At the sound of the man's voice the dog backed up, snarling and baring its teeth.

"I'm not going to hurt you, my shaggy friend!" Marden said, soothingly.

The man spoke a tongue unfamiliar to the dog. But something in



his voice struck a responsive chord. The dog stopped growling and crawled slowly forward on its belly, its eyes alert for treachery.

Marden smiled and extended his arm. He stood as motionless as a statue, letting the dog smell his hand.

"Friends?" he asked.

For the barest instant the dog hesitated, its eyes on the man's face. Then it crept up close to the man and rested its chin on the man's foot, its eyes rolling upward in complete trust.

"Good boy!" Marden said.

A few minutes later Marden was advancing cautiously through the valley shadows, his new-found friend bounding on ahead of him. At his side walked Webb, the semanticist, and John Carew, the commander of an Earth expedition which had

found another Earth where the Milky Way dimmed to a thin sprinkling of stars.

The three men shared a common heritage. They had grown to maturity on an Earth that was light-years away across the great curve of the Universe, and as they walked in the wake of the bounding dog they experienced emotions which were not new to them. Awe in the presence of the unknown and a sense of adventurous expectancy. An explorer's pride in his destiny, and something greater than pride that could not be put into words. Gratitude above all. Gratitude to nature for her bounty, and her mysterious uniformity throughout the universe of stars.

On some Earthlike planets man had not yet evolved! or was still a

brutish savage. On others his great, proud cultures had passed their shining peak. But on every planet that could sustain life in warm abundance there were ferns and trees, butterflies and lizards and furry mammals.

On every planet waterfalls flashed and thundered, and salmon leaped high in the sunlight and dragonflies hovered over still woodland pools. On every planet white birches trembled in the winds of autumn, and the stars were a frosty glimmering in the wintry depths of the night sky.

On every planet of every sun the rich, varied pattern repeated itself. Even men were everywhere much the same, save that nature had given to some an adventurous daring that braved the stars, and to others the snaillike security of one little moss-grown ledge in the mighty ocean of time.

Men were everywhere much the same and yet the cleavage of mind and heart and spirit which yawned between Webb and Marden was as broad and deep as the gulfs between the stars.

Webb was a solitary wasp of a man, living in a burrow with instrument-lined walls, as cold and precise as a steel measuring rod. Marden was all warmth and friendliness, a great golden man who had mastered the art of accepting life's triumphs with eager gratefulness and enduring its defeats with patient humor and a complete absence of rancor.

Webb could not endure defeat

even when it came to him on wings of sympathy and honest human regret. For Webb in his burrow there had been just one woman, and when Marden had won her there had grown up in him a dark hatred which walked with him now like a jackel and would give him no peace.

Commander Carew was a simple, gruff man with few complications of character. He admired Webb's scientific accuracy and Marden's tremendous zest for living, but his own nature was dominated by a central drive for exploration which held him straight to his course in fair weather and foul.

The wind blew against him now as he walked, his rimless eyeglasses gleaming like iridescent beetle wings in the twilight glow.

"I wish I could be sure that dog knows we'd welcome the sight of a human face!" he grunted. "What do you think, Timothy?"

"I'm sure there's something he wants us to find!" Marden replied, shifting his weapon with a creak of leather. "It may be a house—or a grave."

"It won't be a house," Webb said. "This is a natural path through a virgin wilderness. Anyone can see that!"

"He's right, Timothy!" Carew said, frowning. "We'll find no house here!"

Marden stopped walking. For a moment his eyes followed the dog as it went bounding on between the trees to where the ground sloped sharply. When he spoke there was

no triumph in his voice, simply a quiet satisfaction.

"Look up there!"

The house was circular, its glass walls a dull shining against the dark sweep of a high river bank. Marden reached it ahead of the others. He ascended over a winding path strewn with dead leaves to stand for a moment with his great shoulders stark against the valley glare. Then the dark foliage closed over him.

The dog was barking furiously when Carew and Webb pushed their way through the foliage to where their companion crouched in silent awe; the shadow of the forest at his back, his face pressed to a shining wall of glass.

Marden's attitude was that of a man entranced by something which had taken complete command of his faculties. He did not speak as Carew reached his side, simply waved him toward the pane, as though words could have added nothing to the wonder of that moment.

The youth and the girl sat in a blaze of sunlight just inside the window, staring out across the valley with wide, unseeing eyes. The youth was robust of aspect and strikingly handsome, and he wore a simple white tunic, belted in at the waist.

The girl was so beautiful that she seemed molded of the clay of beauty itself. She wore a robin's egg blue tunic, and to the inner vision of the men who stared her loveliness outshone the weaving sunlight, enveloping her still brow like a halo.

Serene, motionless, cradled in eternal radiance, the two sat clasping hands, as if all the cares of humanity were of less moment to them than the dancing motes in a single beam of sunlight.

"It's unbelievable," Webb said, two hours later, his face harsh in the cold light of the main cabin. "They could have lived forever. Instead they pumped all the air out of that dwelling, preferring death to eternal life."

"Are you absolutely sure, Webb?" Carew asked, gently.

"Their language presented no semantic difficulties at all," Webb replied. "There were four spools of speech recordings in that room, and the translations into our language which I secured from the co-ordinating tape alone make it plain that they discovered a simple, radioactive principle which regenerated aging tissues without harming them."

Webb leaned forward, his cold eyes suddenly bright. "It meant—continual revitalization, renewal of every human body cell. Do you realize what glory was theirs, commander? Immortality in a beaker of wine, a glass of clear, sparkling water!"

"Do you mean that not even physical injuries could be fatal?" Marden asked.

"Only very grievous injuries," Webb said. "The kind of injuries a careful man might not sustain in a thousand lifetimes."

The dog moved closer to Marden and rested its head on his knee.

Marden stared at the animal as though he could not quite believe in its reality.

"This dog actually remembers its master," he said. "He was alive before the first spaceship took off from Earth."

"Alive long before we were born," Carew said, nodding. "An immortal dog. *Man!* It's a frightening concept!"

"He could be killed," Webb said, tersely. "A heat gun would finish him in half a minute. But barring unnatural accidents there's no reason on this or any other Earth why he should not live forever."

"As we could live if we had the secret," Marden said, staring straight at Webb.

Carew nodded, a shining eagerness in his stare. "It's the greatest single discovery ever made by man. The secret must be here, somewhere on the planet. The fluid, the drug, whatever it is. We'll find it!"

Webb shook his head. "You'll never find it, commander, and neither will I. You must believe me when I say I'm as sure as any man can be who gropes his way through a maze of improbabilities to the truth. Man perished here by universal consent in a repudiation of life without parallel in space or time. For some reason they found eternal life intolerable and sought to warn us. They left records but destroyed the drug itself."

"But why?" Carew was on his feet, a questioning horror in his stare. "Why should two young peo-

ple with everything to live for renounce the greatest gift of all?"

"Life itself can pall," Webb said. "Too much of anything can pall."

"But that just doesn't make sense."

"It made sense to a quite ordinary man I knew once," Webb said. "The man was condemned to prison for life. To pass away the long, endless hours in his cell the man read all of the world's great books."

"He read Homer, Plato, Dante, Cervantes, Shakespeare, Goethe. After thirty years he was released. He stood blinking in the sunlight, a free man at last."

"The next day he shot himself. Life could offer him no new emotional experience. It stretched out before him chill and empty and meaningless."

Webb's eyes narrowed as he looked thoughtfully at Marden. "No man or woman could endure immortality on one planet under the stars. For twenty thousand years the two we saw tasted life to the full. Death to them was simply a necessary and merciful release."

Marden leaned forward, his hand on the dog's head, his eyes challenging. "But with the whole universe to explore how could life pall? When men reach out for the stars—"

Marden stopped, remembering. Without space travel there could be no reaching out for the stars. Man here had advanced to immortality but not to the stars. He had grown great in wisdom only to be trapped by the awful smallness of his world.

Marden leaned back and shut his eyes, visualizing a moth with frayed wings beating itself to death against an incandescent windowpane. Would not the same blind urge for self-destruction descend upon a human life unnaturally prolonged in just one unchanging environment?

Could man's enormous, restless energy be imprisoned in a recurrent cycle of grief and joy, triumph and heart break on one Earth forever? Wouldn't life beat against the imprisoning walls in the end, horribly, destructively, seeking release from the terrible boredom, the ultimate agony of finding no new thing under the stars?

The two in the cliffward dwelling had met death with no outward beating of wings. But who could tell what black flutterings of despair had swept across their minds at the end? As the air rushed in their radiant bodies had crumbled into dust. Was it not likely that a greater crumbling of mind and spirit had taken place at the moment of their self-imposed entombment?

Marden opened his eyes and watched a great drama die in Carew's eyes.

"We'll circle the planet at an altitude of five thousand feet," Carew said. "The glass will bring the forests and rivers and plains close enough for our purpose. If we don't see a single living man or woman, our duty will be clear."

He paused, then said quietly: "A discovery as great as this is a human trust. We've no right to risk

our lives or the safety of the ship. It's our duty to make sure that the knowledge we've gained here doesn't perish with us by returning to the Solar System immediately."

The ship roared up through the sultry air in a blaze of rocket jets. Down a thrumming corridor Marden walked, the dog at his side. Through the glowing port he could see the dwindling coastal plains of the planet they were leaving now with all their doubts at rest, russet gray against the golden disk of the sun.

It was a lost world, deserted forever by men who had found it a prison and a trap. Deserted by the growth of tombs amidst its fertile plains and valleys. Deserted from within, and not by men taking off for the stars. Spurred by a dreadful urgency to seek escape in death, its own had forsaken it, the crown and summit of its glory forever one with the dust of its plains and the silt of its shifting river beds.

But Marden's thoughts were not on death. The plain sloped to high white cliffs and the open sea, and the azure gleam of the sea awoke a fierce longing in him, so that he would have bartered all the years of his hard-won maturity to be a youth again on Earth. A carefree youth in a gale-lashed boat, the salty tang of the sea in his nostrils, his bare bronzed back drenched with spray.

Strange how a man always returned to his own Earth in the end, with pure delight, with gratitude and fierce pride. Perhaps it was folly to

roam at all, a folly to seek the stars when a man could be so easily entranced by the brightness of autumn-leaves in a remembered dream of childhood.

The dog whined suddenly, and started pawing Marden's knee.

"So you'd like one last look, old fellow!" Marden said. "Well, I can't say I blame you!"

Marden bent to lift the dog up. He did not straighten as he had intended, did not touch the dog.

Instead his vision swept out across the russet plain. He gave a great cry. The spaceship nestled in a natural bowl on a seaward slope, shining and beautiful, its hull mirroring the sea surge, and the long line of white chalk cliffs.

There was a little, swift intake of breath close to Marden and a hand reached out to take hold of the dog's collar.

Webb drew the dog relentlessly back, away from Marden. Then he got between Marden and the dog, and thrust the barrel of an atomic pistol against Marden's spine.

"They were not trapped as we thought," he said. "They had space travel and could reach the stars! We shall never know now why they tired of eternal life!"

Marden felt a coldness encircle his scalp. He straightened slowly, wishing that he could look into Webb's eyes, but not daring to turn.

"Careful!" Webb warned. "A struggle would be unpleasant for both of us. But for you it would be fatal!"

"Webb!" Marden said.

"Yes?"

"I think I knew, subconsciously, right from the start. You're going to kill me because it would be hard for a son of Adam to share eternal life."

"You are clever, Timothy," Webb said. "Not an easy man to deceive."

"You lied to Carew then. You found the drug."

"I found the drug and I took the drug," Webb said. "A small phial, but enough. I shall kill you now with a will because I hate you as one man has seldom hated another. But I would have killed you and Carew in any case."

Marden felt the lightness before Webb did. It began in his legs and crept up through him. It was a familiar lightness. Not quite a giddiness, for Marden's head did not spin and his body did not sway. But it was like a giddiness in that it freed his mind from the tyranny of his body.

"I shall find a way to make Margaret love me now, Timothy," Webb said. "What woman would refuse eternal life? I shall hold her tight in my arms when your children's children are dust!"

Marden did not wait for complete weightlessness to come upon him. As his feet left the deck he swung about and struck Webb a lightning blow in the face. Then he gripped Webb's wrist and gave it a savage wrench.

The pistol went clattering.

Marden was stronger than Webb, but he was not prepared for the

stubborn way in which the smaller man resisted that strength. The blow had sent Webb reeling back, but he made no instinctive gesture of defense. He did not even appear to be hurt.

He seemed to feel the lightness too now, and a great and intense anger flashed in his eyes. Unexpectedly he floated forward, and struck Marden across the eyes with the back of his hand.

The blow nearly blinded Marden. Pain exploded in his temples, and he felt blood start out on his forehead.

"I don't need a weapon, Timothy," Webb said, his voice soft, but deadly. "I'll fight you until you drop from sheer exhaustion."

Marden sent a terrible left hand to Webb's heart; then slashed at his jaw with swift, upward jabs that would have felled a giant.

Webb rocked a moment, but did not sag. Before Marden could hit him again he found himself rushing forward under the momentum of his own effort, his body feather light.

He was just turning when the weightlessness which had lifted both men from the deck seemed to pluck at Webb's vitals, flattening and distorting him, twisting him as a mummy with a core of hollowness might be twisted by an explosive blast.

For one awful instant Webb may have known pain, or an agony of not knowing that was worse than pain. But he was spared all further aware-

ness, for he was dead when he hit the deck.

Marden descended lightly on the opposite side of the passageway, his mouth dry. The dog crawled toward him and whined, thrusting its wet nose against his hand.

"It's all right, boy!" Marden soothed. "Quiet now! Down!"

"He died without knowing a race could be trapped by its own immortality," Marden said, hours later. "He died without knowing that men may have the wisdom and the genius to build spaceships and be forever barred from the stars."

Commander Carew nodded, his shoulders held straight against the glow from space. "If they could have reached out for the stars before prying the secret of eternal life from nature, the tragedy might have been averted," he said. "It is ironic to reflect that they were destroyed because they received the greatest gift first."

"Yes," Marden agreed. "Space travel came too late, for it was that very gift of immortality, the strange new fire in their veins, that made it impossible for them to live in space. Their metabolism was changed by the drug, so that the very molecules of their flesh were like tiny, banked-up fires. When their great shining ships left the gravity field of the planet and passed into the gulfs between the stars the energies that would have made them immortal were fanned by the weightlessness of space into a destroying fire."

Marden sat for an instant staring

out the port at the distant glimmer of star fields incalculable.

"They could either go to their death in space or be trapped on one little planet until the end of time," Carew said. "Not much of a choice. We'll never know how many chose to die in space, as Webb died, or how many succumbed to despair, and walled themselves into air-tight dwellings, seeking in the end only a merciful release from too much love of living."

The dog half rose, and rested its forepaws on Marden's knee. It looked up into his face, wagging its tail.

"If they could have fought their despair, they might still have reached the stars," Marden said. "This dog outlived its master by long ages. The energies which gave it immortality must be on the wane now, for it was able to adjust to

space. It survived the sudden withdrawal of all weight from its body."

Carew wheeled his chair closer to the port, so that he, too, could enjoy the friendliness of the dog. He reached out and patted the animal's head.

"With luck," he said, "the beast may live long enough to die of natural old age."

Marden fumbled in his pockets for his pipe, a smile lighting up his face. "Yes, I had thought of that," he said.

A man and his faithful dog. A dog and its master, in a summer garden on Earth. And coming toward them through the moonlight a woman with the winking stars trapped in the gossamer web of her hair.

"On the right kind of Earth, Pal," Marden said, "one lifetime of rich, rewarding experience should be enough for any man!"

THE END

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THE EDITOR.

HOW TO BUILD A THINKING MACHINE

BY J. J. COUPLING

This highly original article contains specifications for building a machine that thinks — solves problems by trial and learning — and does not merely do arithmetic. And it also contains some fascinating analysis of what constitutes an ideal “thinker”. See the Editorial.

There is a lot of guff in the talk of these days about “thinking machines”. When I attended a conference on large-scale digital computers at Harvard, I found that people who had built operating digital computers, or had almost completed them, were very modest in their statements. Those who were just starting had larger ideas, and for the men with plans only the sky was the limit.

Electronic computer projects have come up hard against the fact that it is a man-sized job just to make a lot of vacuum tube circuits operate reliably, a job a lot bigger than most enthusiasts had realized. Many of the grander ideas and speculations of a year or so ago have been put on the shelf, and the young geniuses

have buckled down to the truly stupendous problem of making exceedingly large and complicated electronic devices do even very simple-minded computing jobs.

On the fringe of the activities, a few still talk about giant electronic brains. When, however, one of these, who has written a book on the subject, asked a seasoned applied mathematician, “Dr. Blank, do you believe that electronic computers think?” he was misunderstood to say “stink.” The harried mathematician replied, “Now that you put the words into my mouth, I rather think that they do.” There followed a short conversation completely at cross purposes.

This doesn’t mean that “thinking machines” in the form of immensely

complicated electronic systems will never be built. They have just been pushed a little farther into the future. We know, for instance, that machines of present design could—if they presently existed—play chess. Perhaps playing chess isn't thinking in a true sense of the word, whatever thinking means in a "true" sense, or in any other sense, for that matter. It will do for the Sunday supplements, however. But even for this sort of thing we will have to wait until more machines are available. For anything beyond there will be a long wait indeed.

Perhaps, however, this is an unduly gloomy view. What is thinking, anyhow? Is thinking something that necessarily involves cubic yards of organized gadgets? Or, will the historian of the year 3,000 look back and say, there, in that simple device built in 194—, or in that patent of 193—the thinking robot began. Without an historian's hindsight, we cannot know, but we are free to speculate. What, then, is thinking?

I certainly wish I knew what "thinking" is. Unfortunately, I don't know, and I rather think that if I did know I wouldn't be writing this article for Astounding SCIENCE FICTION. In a rough preliminary way, however, it may be possible to assign certain general characteristics to a thinking machine, although a given machine would not necessarily have to embody all of these.

First of all, I think that a thinking machine's behavior should not be

entirely predictable. The machine should have a random element, so to speak. Partly, the justification for this is that people who think are in a measure unpredictable. There is a stronger justification, however. We might illustrate this by an example.

Suppose we asked a thinking machine to make its way through a maze, and suppose we offered it a maze with two paths through; one long, involving many choices at branches; and the other shorter, involving fewer choices. Such a maze is shown in the figure. Suppose we describe a path through the maze by a sequence of letters, R and L, *right* and *left*, thus giving the order in which the machine should turn right or left in solving the maze. In the maze shown in the figure, one solution—the solid line—is, R, R. Another—the dashed line—is L, R, L, R, R, L. Certainly, we would think more highly of a machine's intelligence if it made its way through the maze in the first manner rather than the second.

If, however, the machine makes choices according to some fixed pattern in trying to solve a maze, then for some mazes it will always choose the longer way. But, if there is a random element in the making of choices, the machine will more likely find the shorter path in any maze. Further, if the machine is so constructed that it learns the way through the maze only after several successes, it will almost always learn the shorter way.

Thus, by considering the question of solving a maze, we are led to believe that (1) a thinking machine should have a random element, and (2) it should learn only after succeeding several times. This is appealing in a human sense, too, for certainly we fumble around a lot in solving our problems, and by and large we don't learn by succeeding just once. I think that these criteria can probably be justified for machines designed to solve any but the simplest and most routine problems.

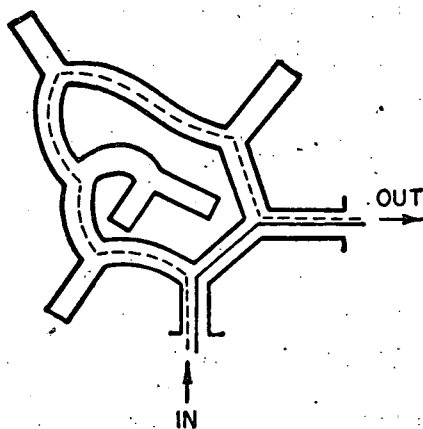
We have talked about the machine's "learning" its way through the maze. That means that it must adjust itself to its environment—the problem it solves—so that it is not the same after having worked a problem as it was before. In other words, it must learn from experience. This implies a criterion of value. Such a criterion may be either built-in or external. We human beings have both kinds. When a baby takes its hand out of the fire, it is relying on an internal standard; it doesn't want to be burned. When a baby takes its hand out of the cookie jar, it is using an external criterion of value belonging to its mother, a criterion which may make itself felt through a sharp tone of voice, or otherwise.

Conceivably, we could reward our thinking machine in some way when it pleased us; perhaps by pressing a button on it labeled, maybe, "pat on the back." In a simple machine we would probably merely make it tend

to remember a course of action which achieved the solution of some problem. The machine's pleasure could, if we wished, be made manifest by the flashing of a green light or by the wagging of a mechanical tail.

Does this sound interesting? Would an unpredictable machine which solved and remembered the solution to a maze be of interest to the average reader of science fiction? Suppose that, in addition, we added the feature that if the maze were changed, the machine would gradually forget the older, now invalid, course of action and learn how to solve the new maze. Would that help to make the machine interesting? I don't know. Offhand, the answer might seem to be, yes. However, I would advise the reader to suspend judgment.

In the meantime, here is a description of a simple device which I thought up while considering maze-solving machines. While it hasn't

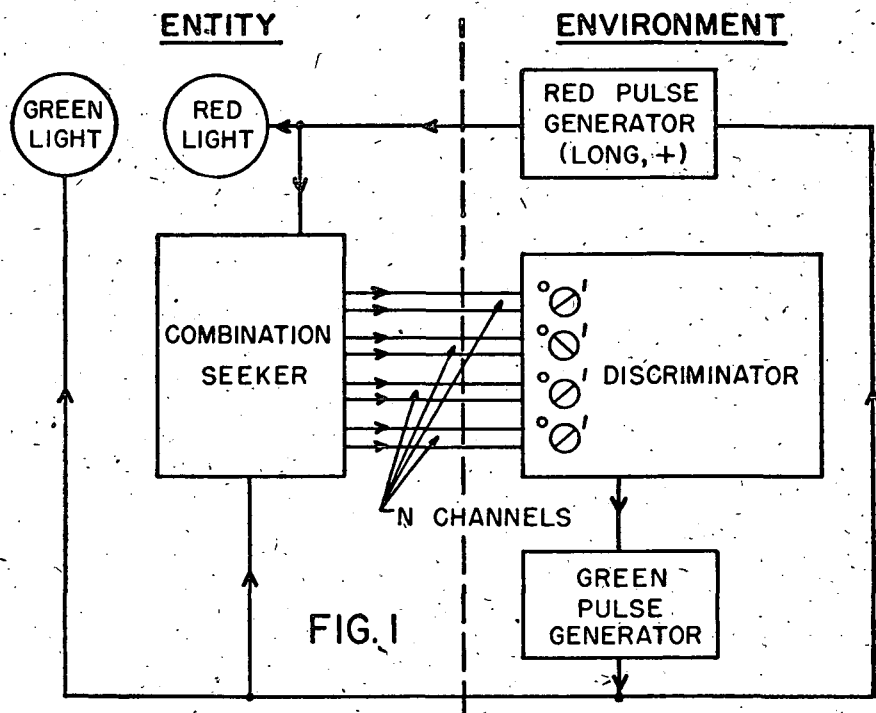


been built and debugged, I'm quite sure that it is operable and could be made by following the description and circuits given in the Appendix.

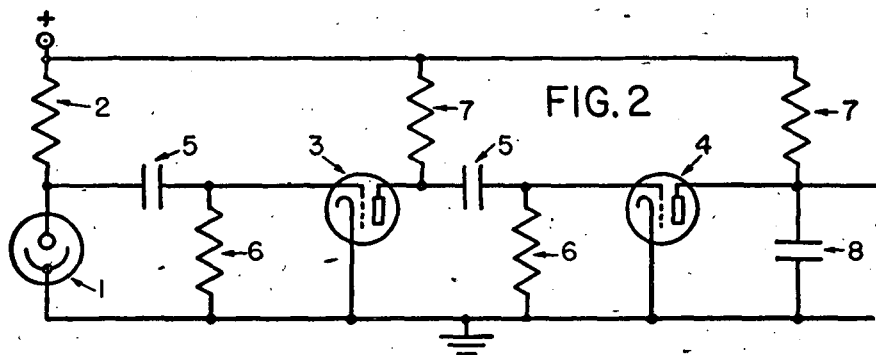
The device consists of two boxes, one called the "entity" and the other the "environment." The environment spontaneously sends signals called "pain signals" to the entity. These pain signals light a red lamp on top of the entity and also cause the entity to send out a code signal of "As" and "Bs" along the "A" or "B" wires of N pairs of wires leading from the entity to the environ-

ment. Instead of As and Bs we may say instead, if we wish, *ones* and *zeros*. Such a group of ones and zeros can be thought of as forming a binary number, as, the number 1001, for instance.

At first, the binary numbers sent from the entity to the environment in response to pain signals from the environment are chosen entirely at random. However, the environment is so constructed that on receipt of one particular binary number it will send a "pleasure" signal to the entity. This pleasure signal lights a



Block diagram of machine which can learn by trial-and-error, and remember.



"Noise source" generator circuit. N -plus-1 needed.

green lamp on top of the entity and also biases the tubes in the entity which send the binary numbers to the environment in such a way as to favor the last signal sent over all other combinations. After several successes, the biases will become such as to predispose the entity overwhelmingly toward sending the combination of pulses which elicits a pleasure signal. If the environment is changed so as to require a different code from the entity in order to obtain a pleasure signal, the biases will gradually leak off; the entity will gradually forget the old pattern, and then it will learn a new one.

We could make such a device learn quickly and forget quickly, or learn only after many successes and be very stubborn about forgetting, or any other combination of stubbornness or adaptability.

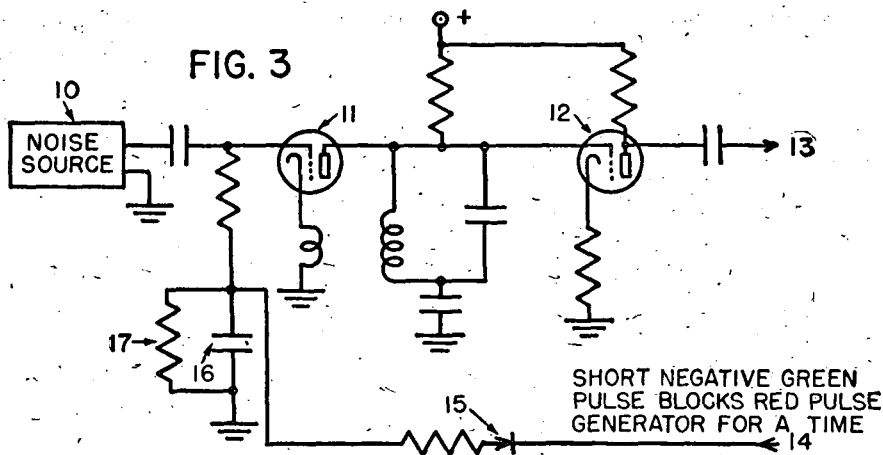
What about maze-solving, though?

Well, we saw earlier that two solutions of the maze shown in the figure

can be written in terms of turnings to the right, R, or to the left, L, as R, R and L, R, L, R, R, L. We can just as well let 1 stand for R or right and let 0 stand for L or left. Then the two solutions can be written 11 and 010110. Suppose there were six pairs of wires between our environment—which now represents the maze—and our entity—which is now a maze-solving machine. We can set the environment to give a pleasure pulse when it receives the number 010110. That takes care of the long path solution, the dotted path of the figure. We can further add circuits to the environment, duplicating some of those already there, so that it will give a pleasure pulse for any number beginning with 11. Thus, the entity will have succeeded if it learns

110000
110001
110010
110011

or, in fact, any of the sixteen six-digit binary numbers which start



"Red pulse" generator circuit—the equivalent of pain stimulus for the electronic organism.

with 11. No wonder the entity will be most likely to hit on the short path. There are sixteen numbers corresponding to it, and only one corresponding to the long path!

I really think that a reader who has waded through the Appendix can't deny at this point that we have a way of making a machine which can in this sense solve a maze. Further, the machine does so while satisfying some criteria which, when they were presented earlier looked, I hope, rather interesting. The machine is unpredictable. It learns after repeated trials. It tends to find the shortest way through the maze. If the maze is changed, it forgets the old and now useless route through, and it learns the new one. It even flashes a green light when it is pleased by its success.

I also really think that a reader

who has got this far is bound to be disappointed. The machine doesn't look like a man, or even like a dog. If it ran through the maze on wheels, there would be some satisfaction to it, but the machine doesn't move. It is incapable of seeing, hearing, feeling or smelling the real physical maze, and it can only solve the maze when the maze is represented by a certain setting of dull-looking switches on a box called "environment" which stands for the maze. This little gadget isn't what we bargained for at all.

There may be compensations, however. If the reader is sadder at this point, perhaps he is wiser as well. Neither I nor he knows just what we mean by "thinking." And I don't think that we are going to be taken in by any attractive definitions, only to have to admit that according to

such definitions a trivial gadget must be admitted to think.

APPENDIX

MACHINE WHICH ADJUSTS TO ENVIRONMENT

The purpose of this appendix is to describe in more detail a device mentioned in the text.

Figure 1 shows a block diagram of

the device. It is divided into two parts shown separated by a vertical dashed line. The elements to the left constitute the *entity* and those to the right constitute the *environment*.

The environment has a *red pulse generator*, which spontaneously emits "red" pulses, which are long positive pulses. It has an input lead from a *green pulse generator*. The arrival of a "green" pulse, which is a short negative pulse, temporarily paralyzes the red pulse generator. The output of the red pulse generator goes to a

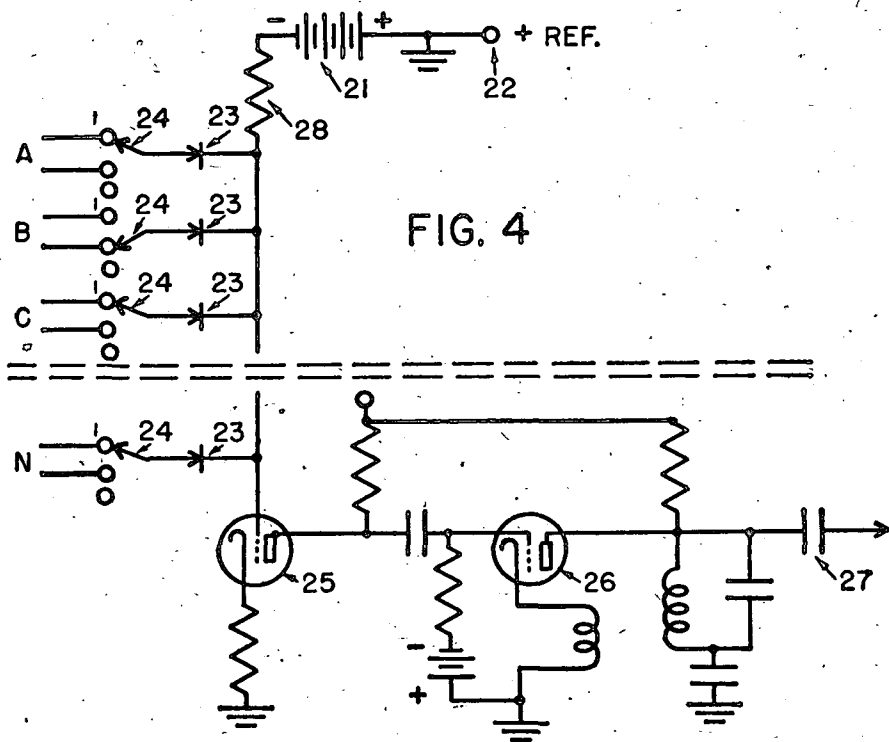


FIG. 4

Discriminator and "Green pulse" generator circuit. The "Green pulse" is the electronic organism's equivalent of pleasure sensation.

combination seeker and to a *red light* in the entity.

The environment also has a *discriminator*. This has n input channels from the entity. The input channels consist of two wires each, the wires of each pair being labeled "0" and "1". The entity can act on the environment by sending simultaneously a negative pulse to the environment on each channel. In a given channel, the pulse can be on either the 0 or the 1 wire. Thus, the pulses on the various channels can be thought of as forming a binary number of n digits or bits. The discriminator is equipped with n single-pole-double-throw switches by means of which it can be adjusted to respond to one only of the 2^n possible binary numbers. When the discriminator receives the preset number from the entity, it activates the green pulse generator. This sends a short negative pulse to the red pulse generator, which temporarily paralyzes it, and also sends a short negative pulse to the combination seeker in the environment and to the *green light*.

The entity consists of the red and green lights and the combination seeker. This latter always sends a binary number to the environment when stimulated by a red pulse. Immediately after turn-on these numbers are randomly produced through the use of noise generators. However, whenever the number preset in the environment is produced by the entity, the entity receives a green

pulse, and this prejudices it to a greater or lesser degree, depending on adjustment, in favor of producing the preset number the next time it is stimulated by a red pulse.

Some of the less obvious contents of the boxes of Figure 1 will now be described.

Figure 2 shows a noise source. One of these is needed in the environment to produce red pulses, and n are needed in the entity. The source of the noise is a gas tube 1 fed through a resistor 2. The noise voltage of the gas tube goes to a two-stage amplifier consisting of tubes 3 and 4, which might be halves of a double triode. Large coupling capacitors 5 and very high grid resistors 6 are used in order to obtain good low-frequency response. If the resistors 6 are 10 megohms or so, the tubes will be self-biasing. The plate resistors 7 are also high to give high gain. The noise output appears across capacitor 8, which cuts off the high frequencies. Maybe more than two stages of amplification will be needed.

Figure 3 shows a circuit for the red pulse generator. A blocking oscillator 11 is triggered by a noise generator 10. An amplifier 12 is used to invert the long negative pulse produced so as to give a long positive pulse at the output 13. Green pulses, which are short and negative, are applied to the lead 14 and act through crystal diode 15 to put a negative charge on condenser 16. This biases the oscillator 11 so that

the noise generator 10 does not trigger it until part of the charge leaks off through resistor 17.

Figure 4 shows the discriminator and the green pulse generator. The n negative pulses from the entity come on wire pairs a,b,—,n to switches 24, each of which can be set to positions 0 or 1. These switches lead to crystal diodes 23, all of which

have a common terminal in bus 20. The bus is connected to a negative voltage source 21 by means of a very high resistance 28. The bus cannot go negative unless all of the diodes 23 as biased negative by pulses from the entity, for the entity impedance plus the impedance of the crystal diodes in the conducting direction is small compared with the resistance

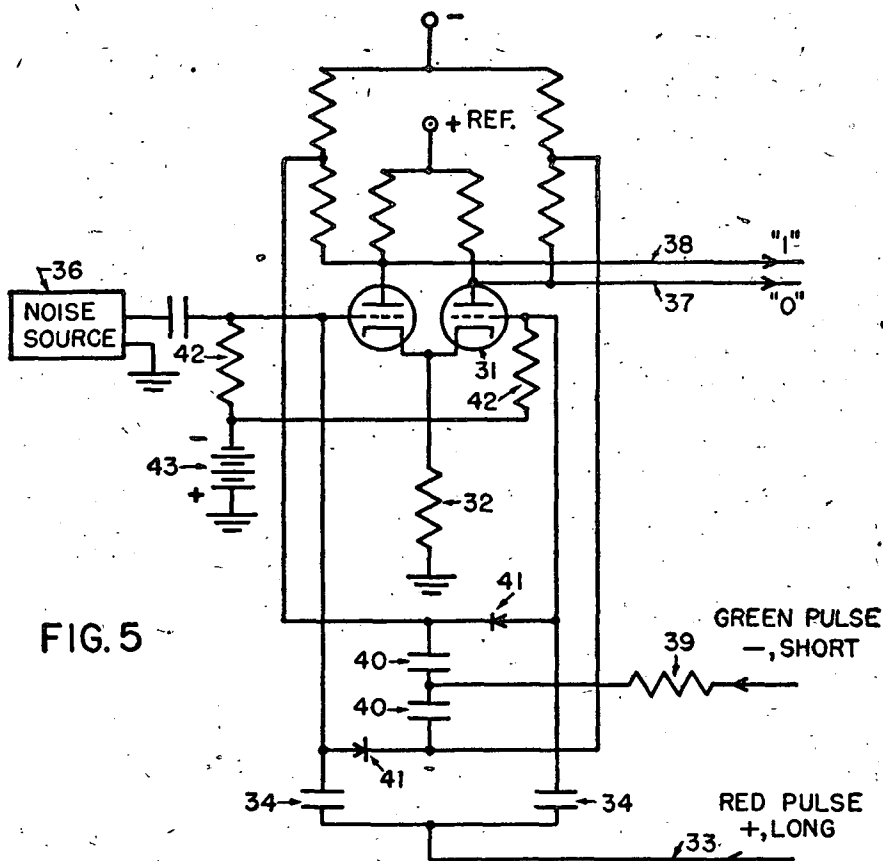


FIG. 5

Circuit for the combination-seeker in the "entity"—N needed.

28. Thus, the bus can go negative only if the binary number preset on switches 24 is received from the entity. When bus 20 goes negative the inverting amplifier 25 applies a positive triggering pulse to blocking oscillator 26, and thus the blocking oscillator delivers a short negative green pulse at the output 27. In connection with Figure 5, it is important to note that the ground of the circuits of Figure 4 is connected (22) to a positive terminal in Figure 5, a terminal marked +ref.

Figure 5 shows one of the elements of the combination selector in the entity. The halves of a double triode, 30 and 31, are commonly biased a little negative by batteries 43 acting through very high resistances 42, so that after a long spell of inactivity each tube will have the same negative bias. The tubes 30 and 31 have a common cathode resistance 32 which is high enough so that if the grids are made positive with respect to ground, they will still not be positive with respect to cathode, and so that if one grid is made appreciably more positive than the other, only the tube with the more positive grid will have plate current.

The grid of tube 30 is driven by noise generator 36, and this tends to make the grid of 30 negative or positive with respect to the grid of 31 in a random manner. A red pulse applied to lead 33 is transmitted to the grids of both 30 and 31 by capacitors 34 which are of such capacitance as to offer a high impedance to signals

of the frequencies supplied by noise generator 36 but a reasonably low impedance to the higher frequencies of the red pulse. If at the time the red pulse appears the grid of 30 is more positive — less negative — than that of 31, because of the signal from the noise generator 36, tube 30 will conduct and a negative pulse will be sent out on the "1" wire 38 of the output channel, and no pulse will be sent out over the "0" wire 37. If the grid of 30 is more negative than that of 31 when the red pulse arrives, a negative pulse will go out on 37 and no pulse on 38.

Now, when the pulses sent out by the entity accidentally form the combination preset in the environment, a green pulse arrives on lead 39. This is applied through capacitors 40 to crystal diodes 41 in such a direction as to tend to make the diodes conduct. The capacitors 40 are of low capacitance, so that they transmit the short green pulses but are essentially open circuits to the long red pulses. The diodes 41 are also biased by voltages derived from the plates of tubes 30 and 31, so that only the diode connected to the plate of the tube with plate current—the lower-potential plate—will be made conducting by a green pulse. Thus, when a green pulse comes along, one of the diodes is made conducting and this tends to put a negative charge on one of the capacitors 34. The capacitor which is charged negatively is that associated with the nonconducting tube. Hence, a green

pulse changes the relative biases of the tubes 30 and 31 in such a way as to bias the grid of the nonconducting tube more negative. Thus, for instance, if a pulse goes out over the "0" wire and if a green pulse is elicited from the environment, the tubes are biased so as to favor production of a pulse on the "0" wire the next time a red pulse arrives. If, however, the entity is left inactive or without green pulses for a time—if the entity is turned off or if the present combination in the environment

is changed—the biases will gradually equalize because of resistors 42 and the entity will no longer be predisposed toward sending some particular pulse combination.

Returning to Figure 3, the "paralyzing" or inactivating circuit consisting of elements 15, 16 and 17 prevents the entity from eliciting a rapid succession of green pulses from the environment. It also gives the entity freedom from red pulses for a time as a reward for acting properly on the environment.

THE END

THE ANALYTICAL LABORATORY

For once, the article in an issue really got comments! As mentioned in Brass Tacks, some 2,000-plus letters, in fact. And I think one should properly, in consequence, put "Dianetics" in first place. Incidentally, a note to would-be advertisers: The *only* serious mention of dianetics up to the moment of this writing has been in Astounding SCIENCE FICTION. And 12,000 copies of the book were sold in the days following publication. Maybe this indicates that the production of an article everybody needs is usually met with immediate success!

In any case, the stories in the May issue rated as follows:

Place	Story	Author	Points
1.	The Helping Hand	Poul Anderson	1.74
2.	The Wizard of Linn	A. E. van Vogt	2.16
3.	The Potters of Firsk	Jack Vance	2.58
4.	The Apprentice	Miles, M. Acheson	3.63

Because of the length of the Dianetics article, there were only four stories in the May issue.

THE EDITOR.

HOW TO BUILD A THINKING MACHINE

127

LINGUISTICS AND TIME

BY ARTHUR J. COX

This science article brings forward one of the most fascinating aspects of human language. I will guarantee that you will find remarkable difficulty in getting these concepts clearly and permanently in mind. They are so alien to our Western Culture pattern of thought, it is difficult even to think about them!

It is difficult to realize just how closely thought is tied up with language. Common sense—natural logic, as it has been called—tells us that the two are separate; that language is a means of communication used by two or more individuals by which they may *express* their thoughts; that one has merely to select the right words to get over a given idea to another. And common sense also tells us that, though languages have grammars, they are simply norms of conventional and social correctness, having much the same relation to speaking as correct dinner manners have to eating; in short, that speaking and thinking are things apart. It assumes that the laws of logic, reason and thought are the same the universe over, whether used by Chinese or Dobu, Cherokee or Sarapesh. There is an underlying rationale to the universe that need only be observed and different languages are basically parallel methods of expressing this rationale. Of course, they differ in certain minor aspects but they seem

important only to the stodgy grammarian who myopically inspects them at close range.

But the modern linguist bears about the same relationship to the old grammarian as the modern chemist does to the ancient alchemist—and common sense, as the linguist knows, is itself but a reflection of language, a plastic thing cast from the mold of grammar. (The word “linguist” is not used here in the “foreign language interpreter” sense, but in another way which shall become clear.)

The geographical expansions and technological growth of the past few hundred years gave linguistic science a much-needed boost, for it enabled them to examine critically and scientifically a large number of widely-varying languages—their frame-of-reference was wonderfully expanded. Startling differences in language-thought-patterns were experienced and the world acquired a large number of previously-unsuspected significances. It was discovered, as has

already been implied, that the linguistic structure of each language was not merely a system for voicing ideas but was, itself, the mold of those ideas and the pattern which shaped the structure of formulations. The world as perceived by our senses is an eternal flux, a dynamic, flowing, merging, changing thing; language dissects that world, molds it, categorizes it, departmentalizes it in static or semistatic ways.

Each speech-community plays its game of language according to rules. These rules are implied, unknowingly agreed upon by the participants, but observance of these rules is of absolute necessity if agreement is to be reached between members of the community. But language, as stated above, is more than a glorified Morse code or wigwag signals made by the mouth; it cuts the world up into concepts, ascribes significances to it. The thing is that this is not at first evident if we inspect only Indo-European languages. Among these there is a general similarity of grammar-pattern because all these are descended historically from what was long ago one speech-community. Though even such closely related languages Semitic, Chinese and African systems show marked divergence the contrast was not enough to lime-light the obvious. The real gold mine, the real *eldorado*—as one might suspect—was discovered in the Americas for here the speech-communities had remained isolated from the Indo-European world for many millenniums and thus had a chance to

evolve with a great deal of independence.

Thus, a new theory was evolved—the Linguistic Theory of Relativity: “Two observers are not led to a similar picture of the universe by the same experience unless their linguistic systems are similar or the relation between them can be calibrated.”

In this article, this point will be illustrated in what I consider to be a unique and startling way—though prosaic enough at first glance—by an examination of the differences in time-conception between the Indo-European and Hopi languages.

The subject of “time” is picked because of the recent interest shown by the readers and writers of this magazine in that subject and thus gives an unusual opportunity to present a view of the problem from a different angle. The Hopi are selected because they are an excellent case in point and material on the subject is readily available. The man who made the existence of that material possible was an engineer and part-time linguist, named Benjamin Lee Whorf, whose death terminated what promised to be a remarkably brilliant career. Up to the time of his death, Whorf had written only four monographs on linguistics which were published in an obscure technical journal. This article is based upon his paper, “Linguistics and Science.”

The Hopi grammatical-conception of time bears a definite similarity to

Bergson's "durational time" but has practically no relationship to the physicist's mathematical time, *T*. From our viewpoint, the Hopi conception of time has several characteristics: 1. It varies with each observer. 2. It does not permit expressions of similarity. 3. Has zero dimensions. This last statement has two significances: A. It cannot be given a number greater than one in relation to duration; every period of time is thought of as being a unit, *no matter what its length is in relation to other units*. They cannot use plurals in reckoning time. To give a rather clumsy analogy, the Hopi cannot say, "The creation of the world took six days." They can only say, "The creation was finished on the sixth day." B. It is one-valued.

This last refers to the fact that the Hopi verb has no tenses. Indo-European languages are, basically, three-valued; they have a past, present and future. The Hopi doesn't. Instead of indicating the time an event occurs, Hopi indicates the type of *validity* the *speaker* intends to impart to the statement: 1. Report of an event. 2. Expectation of an event. 3. Generalizations about events.

For example: If the speaker and listener are both witnessing the same event, the same words are used to describe it whether—under our system—it is present or past. The sentences: "He is running," or "He ran," are the same: "*Wari*"—*if both have witnessed or are witnessing the event*. If only one person has witnessed it, the sentence becomes "*Era*

wari" and the difference here is one of validity, not tense. Again, the equivalents of "He will run" or "He runs habitually" are each different as one is an expectation and the other a generalization.

In short, the system is one-valued in respect to Indo-European time. It is false even to say that the Hopi speaks only in the present tense—to the Hopi he is not doing so. Actually, the grammatical structure describes what is happening in the individual doing the speaking more closely than it does the events of which he is speaking. That is, he is seeing, he is remembering, he is expecting, he is generalizing, and these events are taking place at the time the speaker is speaking.

The above is difficult to understand. At first, it may seem like splitting hairs; it may seem a little bit too arbitrary. That is because we are translating from one language-system into another. In translating Hopi we have to do more than substitute English words for Hopi, we have to transform it into Indo-European grammatical structure and thus what would be to the Hopi the "self-evident realness" of the system is lost. Some habit-formation-patterns are difficult to change.

By using forms called aspects or modes, Hopi grammar makes it easy to differentiate between momentary, continued and repeated occurrences and to show the actual sequence of reported events. *Thus the universe can be described without reference to a concept of dimensional time.*

How would a science of physics constructed along these lines work with no dimensional time (T) in its equations? This is the question Whorf has asked himself. His answer is, to my mind, stimulating.

Naturally, such a system would require a different ideology and a different form of mathematics. First off, V —velocity—would have to go. The Hopi language actually has no word corresponding to the English “speed” or “rapid”. What is used when the language is translated into English is usually a word meaning *intense* or *very* accompanying a motion-verb. Thus, a new term would probably be introduced into the system, I —intensity. Every object and event would have an I , *whether the object or event was moving or just existing, enduring*.

The I of an electric charge might turn out to be its voltage or potential. Clocks would have to be used to measure intensity—relative intensity, of course. Acceleration would most likely become V , meaning *variation* not *velocity*. Possibly all growths and accumulations would be regarded as V s. There would be no concept of rate, in the temporal sense as it, like velocity, introduces a dimensional and linguistic time. Naturally, all measurements are known as ratios but the measurements of I made in comparison to a clock, or a planet, would not be handled directly as ratios, just as distances made in comparison to a yardstick are not treated as ratios.

And the higher forms of mathe-

matics, what would they be like? It would take an accomplished mathematician to answer that question in detail but there are hints: As the reader remembers, two of the three peculiar characteristics of the Hopi grammar-time are that (1) it varies with each observer and (2) it does not permit expressions of simultaneity. How would this affect a Hopi-type formulation of the General Theory of Relativity? This is an interesting conjecture as it would seem that peculiarity (1) gives it an immediate-grammatical basis for relativity—a fact which could mean that some of the historically-long and complex steps, which led to the formulation of the mathematic systems which make such a theory possible under the Indo-European language-structure, might be accomplished much sooner under a Hopi-type grammatical system. Also, might not (2) mean that the Lorentz-Einstein Transformation would never be formulated consciously but would be an automatic assumption of Hopian mathematics?

Thus we have the basis of our physics and mathematics. A physicist from another culture that used time, T , and velocity, V , would have great difficulty in getting us to understand *those* concepts. We would talk about the intensity of a chemical reaction and he would speak of its velocity or rate. At first, we would most likely think that these words were simply synonyms for intensity in his language and he would think that intensity is our own word for

velocity. Perhaps at first we would agree but later we would begin to disagree. After some discussion it might occur to both sides that different rationalization systems are in use, but it is more likely that the confusion would continue. It would certainly be no easy task for him to make us understand just what he actually meant by the velocity of a chemical reaction. Perhaps he would try to explain it by likening it to moving objects, by pointing out the differences between an airplane, say, and an automobile. And we—with superior smiles—would attempt to show him where that was a matter of different intensities and besides there was little similarity between airplanes and cars and a chemical reaction in a beaker—the vehicles are moving relative to the ground, whereas the material in the beaker is stationary. In our system, the analogy would never occur to us as one would be a matter of *I* and the other of *V*.

It is interesting to ask ourselves what would have happened if there had been present in the Hopi world those cultural-environmental tensions which create technological progress. How much farther ahead of us would they be? I have a picture of brown-skinned men ruling not only the world but the Solar System.

o A quote from Whorf:*

“... our own thought processes ... can no longer be envisioned as spanning the gamut of reason and

knowledge but only as one constellation in a galactic expanse. A fair realization of the incredible diversity of linguistic systems that range over the globe leaves one with the inescapable feeling that the human spirit is inconceivably old; that a few thousand years of history covered by our written records are no more than the thickness of a pencil mark on the scale that measures our past experiences on this planet; that the events of these recent millenniums spell nothing in any evolutionary wise, that the race has taken no sudden spurt, achieved no commanding synthesis during recent millenniums but has only played a little with a few of the linguistic formulations and views of nature bequeathed from an inexpressibly longer past. Yet neither this feeling nor the sense of precarious dependence of all we know upon linguistic tools, which themselves are largely unknown, need be discouraging to science but should, rather, foster that humility which accompanies the true scientific spirit and thus forbid that arrogance of the mind which hinders real scientific curiosity and detachment.

Referents:

1 “The Time of Your Life,” R. S. Richardson, *Astounding SCIENCE FICTION*, November, 1949.

2 “Science and Linguistics,” Benjamin Lee Whorf, *Technology Review*, 1940, XLIV, 229-231, 247, 248.

*Reprinted from *The Technology Review* April, 1940, edited at the Massachusetts Institute of Technology.

THE END



THE DEVIL'S INVENTION

BY ALFRED BESTER

He was a nice, good-hearted young man, and he had wonderful, awe-inspiring powers. But applying those powers ran into one little trouble — that wrecked things on a grand scale!

Illustrated by Brush

This is the story of a monster.

They named him Odysseus Gaul in honor of Papa's favorite hero, and over Mama's desperate objections; but he was known as Oddy from the age of one.

The first year of life is an egotistic craving for warmth and security. Oddy was not likely to have much of that when he was born, for Papa's

real estate business was bankrupt, and Mama was thinking of divorce. But an unexpected decision by United Radiation to build a plant in the town made Papa wealthy, and Mama fell in love with him all over again. So Oddy had warmth and security.

The second year of life is a timid exploration. Oddy crawled and ex-

plored. When he reached for the crimson coils inside the nonobjective fireplace, an unexpected short circuit saved him from a burn. When he fell out the third floor window, it was into the grass filled hopper of the Mechano-Gardener. When he teased the cat, it slipped as it snapped at his face.

"Animals love Oddy," Mama said. "They only pretend to bite."

Oddy wanted to be loved, so everybody loved Oddy. He was petted, pampered and spoiled through pre-school age. Shopkeepers presented him with largess, and acquaintances showered him with gifts. Of sodas, candy, tarts, chrysons, bobbletucks, freezies and various other comestibles, Oddy consumed enough for an entire kindergarten. He was never sick.

"Takes after his father," Papa said. "Good stock."

Family legends grew about Oddy's luck—How a perfect stranger mistook him for his own child just as Oddy was about to amble into the Electronic Circus, and delayed him long enough to save him from the disastrous explosion of '98. How a forgotten library book rescued him from the Rocket Crash of '99. How a multitude of odd incidents saved him from a multitude of assorted catastrophes. No one realized he was a monster—yet.

At eighteen, he was a nice looking boy with seal brown hair, warm brown eyes and a wide grin that showed even white teeth. He was strong, healthy, intelligent. He was

completely uninhibited in his quiet, relaxed way. He had charm. He was happy. So far, his monstrous evil had only affected the little Town Unit where he was born and raised.

He came to Harvard from a Progressive School, so when one of his many quick friends popped into the dormitory room and said: "Hey, Oddy, come down to the Quad and kick a ball around." Oddy answered: "I don't know how, Ben."

"Don't know how?" Ben tucked the football under his arm and dragged Oddy with him, "Where you been, Laddie?"

"They didn't talk much about football back home," Oddy grinned. "Thought it was old fashioned. We were strictly Huxley-Hob."

"Huxley-Hob! That's for high-brows," Ben said. "Football is still the big game. You want to be famous? You got to be on that gridiron before the video every Saturday."

"So I've noticed, Ben. Show me."

Ben showed Oddy, carefully and with patience. Oddy took the lesson seriously and industriously. His third punt was caught by a freakish gust of wind, traveled seventy yards through the air, and burst through the third floor window of Proctor Charley-Gravy-Train-Stuart. The proctor took one look out the window and had Oddy down to Soldier Stadium in half an hour. Three Saturdays later, the headlines read: "ODDY GAUL 57—Army 0."

"Snell and Rumination!" Coach Hig Clayton swore. "How does he

do it? There's nothing sensational about that kid. He's just average. But when he runs they fall down chasing him. When he kicks, they fumble. When they fumble, he recovers."

"He's a negative player," Gravy-Train answered. "He lets you make the mistakes and then he cashes in."

They were both wrong. Oddy Gaul was a monster.

With his choice of any eligible young woman, Oddy Gaul went stag to the Observatory Prom, wandered into a darkroom by mistake, and discovered a girl in a smock bending over trays in the hideous green safe-light. She had cropped black hair, icy blue eyes, strong features, and a sensuous boyish figure. She ordered him out and Oddy fell in love with her—temporarily.

His friends howled with laughter when he told them. "Shades of Pygmalion, Oddy, don't you know about *her*? The girl is frigid. A statue. She loathes men. You're wasting your time."

But through the adroitness of her analyst, the girl turned a neurotic corner one week later and fell deeply in love with Oddy Gaul. It was sudden, devastating and enraptured for two months. Then just as Oddy began to cool, the girl had a relapse and everything ended on a friendly, convenient basis.

So far only minor events made up the response to Oddy's luck, but the shock-wave of reaction was spreading. In September of his sophomore year, Oddy competed for the Po-

litical Economy Medal with a thesis entitled: "Causes of Mutiny." The striking similarity of his paper to the Astraeon Mutiny that broke out the day his paper was entered won him the prize.

In October, Oddy contributed twenty dollars to a pool organized by a crackpot classmate for speculating on the Exchange according to "Stock Market Trends," a thousand year old superstition. The seer's calculations were ridiculous, but a sharp panic nearly ruined the Exchange as it quadrupled the pool. Oddy made one hundred dollars.

And so it went—worse and worse. The monster.

Now a monster can get away with a lot when he's studying speculative philosophy where causation is rooted in history and the Present is devoted to statistical analysis of the Past; but the living sciences are bulldogs with their teeth clamped on the phenomenon of Now. So it was Jesse Migg, physiologist and spectral physicist, who first trapped the monster—and he thought he was an angel.

Old Jess was one of the Sights. In the first place he was young—not over forty. He was a malignant knife of a man, an albino, pink-eyed, bald, point-nosed and brilliant. He affected Twentieth Century clothes and Twentieth Century vices—tobacco and potations of C_2H_5OH . He never talked . . . he spat. He never walked—he scurried. And he was scurrying up and down the aisles of

the laboratory of Tech I—General Survey of Spatial Mechanics—when he ferreted out the monster.

One of the first experiments in the course was EMF Electrolysis. Elementary stuff. A U-Tube containing water was passed between the poles of a stock Remosant Magnet. After sufficient voltage was transmitted through the coils, you drew off Hydrogen and Oxygen in two-to-one ratio at the arms of the tube and related them to the voltage and the magnetic field.

Oddy ran his experiment earnestly, got the proper results, entered them in his lab book and then waited for the official check-off. Little Migg came hustling down the aisle, darted to Oddy and spat: "Finished?"

"Yes, sir."

Migg checked the book entries, glanced at the indicators at the ends of the tube, and stamped Oddy out with a sneer. It was only after Oddy was gone that he noticed the Remosant Magnet was obviously shorted. The wires were fused. There hadn't been any field to electrolyze the water.

"Curse and Confusion!" Migg spat—he also affected Twentieth Century vituperation—and rolled a clumsy cigarette.

He checked off possibilities in his comptometer head. 1. Gaul cheated. 2. If so, with what apparatus did he portion out the H and O₂? 3. Where did he get the pure gases? 4. Why did he do it? Honesty was easier. 5. He didn't cheat. 6. How did he get

the right results? 7. How did he get any results?

Old Jess emptied the U-Tube, refilled it with water and ran off the experiment himself. He, too, got the correct results without a magnet.

"Rice on a Raft!" he swore, unimpressed by the miracle, and infuriated by the mystery. He snooped, darting about like a hungry bat. After four hours he discovered that the steel bench supports were picking up a charge from the Greeson Coils in the basement and had thrown just enough field to make everything come out right.

"Coincidence," Migg spat. But he was not convinced.

Two weeks later, in Elementary Fission Analysis, Oddy completed his afternoon's work with a careful listing of resultant isotopes from selenium to lathanum. The only trouble, Migg discovered, was that there had been a mistake in the stock issued to Oddy. He hadn't received any-U²³⁵ for neutron bombardment. His sample had been a left-over from a Stefan-Boltzmann black-body demonstration.

"Frog In Heaven!" Migg swore, and double-checked. Then he triple-checked. When he found the answer—a remarkable coincidence involving improperly cleaned apparatus and a defective cloud chamber—he swore further. He also did some intensive thinking.

"There are accident prones," Migg snarled at the reflection in his Self-Analysis Mirror. "How about Good Luck prones?"

But he was a bulldog with his teeth sunk in phenomena. He tested Oddy Gaul. He hovered over him in the laboratory, cackling with infuriated glee as Oddy completed experiment after experiment after experiment with defective equipment. When Oddy successfully completed the Rutherford Classic—getting 80¹⁷ after exposing nitrogen to alpha radiation—but in this case without the use of nitrogen or alpha radiation, Migg actually clapped him on the back in delight. Then the little man investigated and found the logical, improbable chain of coincidences that explained it.

He devoted his spare time to a check-back on Oddy's career at Harvard. He had a two-hour conference with a lady astronomer faculty analyst, and a ten-minute talk with Hig Clayton and Gravy-Train Stuart. He rooted out the Exchange Pool, the Political Economy Medal, and half a dozen other incidents that filled him with malignant joy. Then he cast off his Twentieth Century affectation, dressed himself properly in formal leotards, and entered the Faculty Club for the first time in a year.

A four-handed chess game in three dimensions was in progress in the Diathermy Alcove. It had been in progress since Migg joined the faculty, and would probably not be finished before the end of the century. In fact, Johansen, playing Red, was already training his son to replace him in the likely event of his dying

before the completion of the game.

As abrupt as ever, Migg marched up to the glowing cube, sparkling with sixteen layers of varicolored pieces, and spat: "What do you know about accidents?"

"Ah?" said Bellanby, *Philosopher in Res* at the University. "Good evening, Migg. Do you mean the accident of substance, or the accident of essence? If, on the other hand, your question implies—"

"No, no," Migg interrupted. "My apologies, Bellanby. Let me rephrase the question: Is there such a thing as Compulsion of Probability?"

Hrrdnikkisch completed his move and gave full attention to Migg, as did Johansen and Bellanby. Wilson continued to study the board. Since he was permitted one hour to make his move and would need it, Migg knew there would be ample time for the discussion.

"Compulthion of Probability?" Hrrdnikkisch lisped. "Not a new conthept, Migg. I recall a thurvey of the theme in *The Integrath* Vol. LVIII, No. 9: The calculuth, if I am not mithtaken—"

"No," Migg interrupted again. "My respects, Signoid. I'm not interested in the mathematic of Probability, nor the philosophy. Let me put it this way: The Accident Prone has already been incorporated into the body of Psychoanalysis. Payton's Theorem of the Least Neurotic Norm settled that. But I've discovered the obverse. I've discovered a Fortune Prone."

"Ah?" Johansen chuckled. "It's

to be a joke. You wait and see, Signoid."

"No," answered Migg. "I'm perfectly serious. I've discovered a genuinely lucky man."

"He wins at cards?"

"He wins at everything. Accept this postulate for the moment— I'll document it later: There is a man who is lucky. He is a Fortune Prone. Whatever he desires, he receives. Whether he has the ability to achieve it or not, he receives it. If his desire is totally beyond the peak of his accomplishment, then the factors of chance, coincidence, hazard, accident and so on, combine to produce his desired end."

"No," Bellanby shook his head. "Too farfetched."

"I've worked it out empirically," Migg continued. "It's something like this. The future is a choice of mutually exclusive possibilities, one or the other of which must be realized in terms of favorability of the events and number of the events—"

"Yes, yes," interrupted Johansen. "The greater the number of favorable possibilities, the stronger the probability of an event maturing. This is elementary, Migg. Go on."

"I continue," Migg spat indignantly. "When we discuss Probability in terms of throwing dice, the predictions or odds are simple. There are only six mutually exclusive possibilities to each die. The favorability is easy to compute. Chance is reduced to simple odds-ratios. *But* when we discuss Probability in terms of the Universe, we

cannot encompass enough data to make a prediction. There are too many factors. Favorability cannot be ascertained."

"All thith ith true," Hrrdnikkisch said, "but what of your Fortune Prone?"

"I don't know how he does it—but merely by the intensity or mere existence of his desire, he can affect the favorability of possibilities. By wanting, he can turn possibility into probability, and probability into certainty."

"Ridiculous," Bellanby snapped. "You claim there's a man farsighted and far-reaching enough to do this?"

"Nothing of the sort. He doesn't know what he's doing. He just thinks he's lucky, if he thinks about it at all. Let us say he wants . . . oh, name anything."

"Heroin," Bellanby said.

"What's that?" Johansen inquired.

"A morphine derivative," Hrrdnikkisch explained. "Formerly manufactured and thold to narcotic adicthh."

"Heroin," Migg said. "Excellent. Say my man desires Heroin, an antique narcotic no longer in existence. Very good. His desire would compel this sequence of possible but improbable events: A chemist in Australia, fumbling through a new organic synthesis, will accidentally and unwittingly prepare six ounces of Heroin. Four ounces will be discarded, but through a logical mistake two ounces will be preserved. A further coincidence will ship it to this country and this city, wrapped

as powdered sugar in a plastic ball; where the final accident will serve it to my man in a restaurant which he is visiting for the first time on an impulse."

"La-La-La!" said Hrrdnikkisch. "Thith shuffling of hithtory? Thith fluctuation of inthident and pothibility? All achieved without the knowledge but with the dethire of a man?"

"Yes. Precisely my point," Migg snarled. "I don't know how he does it, but he turns possibility into certainty. And since almost anything is possible, he is capable of accomplishing almost anything. He is godlike but not a god because he does this without consciousness. He is an angel."

"Who is this angel?" Johansen asked.

And Migg told them all about Oddy Gaul.

"But how does he do it?" Bellanby persisted. "How does he do it?"

"I don't know," Migg repeated again. "Tell me how Espers does it."

"What!" Bellanby exclaimed. "Are you prepared to deny the EK pattern of thought? Do you—"

"I do nothing of the sort. I merely illustrate one possible explanation. Man produces events. The threatening War of Resources may be thought to be a result of the natural exhaustion of terran resources. We know it is not. It is a result of centuries of thriftless waste by man. Natural phenomena are less often

produced by nature and most often produced by man."

"And?"

"Who knows? Gaul is producing phenomena. Perhaps he's unconsciously broadcasting on an EK waveband. Broadcasting and getting results. He wants Heroin. The broadcast goes out—"

"But Espers can't pick up any EK brain pattern farther than the horizon. It's direct wave transmission. Even large objects cannot be penetrated. A building, say, or a—"

"I'm not saying this is on the Esper level," Migg shouted. "I'm trying to imagine something bigger. Something tremendous. He wants Heroin. His broadcast goes out to the world. All men unconsciously fall into a pattern of activity which will produce that Heroin as quickly as possible. That Austrian chemist—"

"No. Australian."

"That Australian chemist may have been debating between half a dozen different syntheses. Five of them could never have produced Heroin; but Gaul's impulse made him select the sixth."

"And if he did not anyway?"

"Then who knows what parallel chains were also started? A boy playing Robbers in Montreal is impelled to explore an abandoned cabin where he finds the drug, hidden there centuries ago by smugglers. A woman in California collects old apothecary jars. She finds a pound of Heroin. A child in Berlin, playing with a defective Radar-

Chem Set, manufactures it. Name the most improbable sequence of events, and Gaul can bring it about, logically and certainly. I tell you, that boy is an angel!"

And he produced his documented evidence and convinced them.

It was then that four scholars of various but indisputable intellects elected themselves an executive committee for Fate and took Oddy Gaul in hand. To understand what they attempted to do, you must first understand the situation the world found itself in during that particular era.

It is a known fact that all wars are founded in economic conflict, or to put it another way, a trial by arms is merely the last battle of an economic war. In the pre-Christian centuries, the Punic Wars were the final outcome of a financial struggle between Rome and Carthage for economic control of the Mediterranean. Three thousand years later, the impending War of Resources loomed as the finale of a struggle between the two Independent Welfare States controlling most of the known economic world.

What petroleum oil was to the Twentieth Century, FO—the nickname for Fissionable Ore—was to the Thirtieth; and the situation was peculiarly similar to the Asia Minor crisis that ultimately wrecked the United Nations a thousand years before. Triton, a backward, semibarbaric satellite, previously unwanted and ignored, had suddenly discov-

ered it possessed enormous resources of FO. Financially and technologically incapable of self-development, Triton was peddling concessions to both Welfare States.

The difference between a Welfare State and a Benevolent Despot is slight. In times of crisis, either can be traduced by the sincerest motives into the most abominable conduct. Both the Comity of Nations—bitterly nicknamed "The Con Men" by Der Realpolitik aus Terra—and Der Realpolitik aus Terra—sardonically called "The Rats" by the Comity of Nations—were desperately in need of natural resources, meaning FO. They were bidding against each other hysterically, and elbowing each other with sharp skirmishes at outposts. Their sole concern was the protection of their citizens. From the best of motives they were preparing to cut each other's throat.

Had this been the issue before the citizens of both Welfare States, some compromise might have been reached; but Triton in the catbird seat, intoxicated as a schoolboy with new-found prominence and power, confused issues by raising a religious question and reviving a Holy War which the Family of Planets had long forgotten. Assistance in their Holy War—involving the extermination of a harmless and rather unimportant sect called The Quakers—was one of the conditions of sale. This, both the Comity of Nations and Der Realpolitik aus Terra were prepared to swallow with or without private reservations, but it could not

be admitted to their citizens.

And so, camouflaged by the burning issues of Rights of Minority Sects, Priority of Pioneering, Freedom of Religion, Historical Rights to Triton v. Possession in Fact, et cetera, the two Houses of the Family of Planets feinted, parried, riposted and slowly closed, like fencers on the strip, for the final sortie which meant ruin for both.

All this the four men discussed through three interminable meetings.

"Look here," Migg spat toward the close of the third consultation. "You theoreticians have already turned nine man-hours into carbonic acid with ridiculous dissensions—"

Bellanby nodded, smiling. "It's as I've always said, Migg. Every man nurses the secret belief that were he God he could do the job much better. We're just learning how difficult it is."

"Not God," Hrrdnikkisch said, "but hith Prime Minithter. Gaul will be God."

Johansen winced. "I don't like that talk," he said. "I happen to be a religious man."

"You?" Bellanby exclaimed in surprise. "A Colloid-Therapeutist?"

"I happen to be a religious man," Johansen repeated stubbornly.

"But the boy hath the power of the miracle," Hrrdnikkisch protested. "When he hath been taught to know what he doeth, he will be a god."

"This is pointless," Migg rapped out. "We have spent three sessions



in piffling discussion. I have heard three opposed views re Mr. Odysseus Gaul. Although all are agreed he must be used as a tool, none can agree on the work to which the tool must be set. Bellanby prattles about an Ideal Intellectual Anarchy, Johansen preaches about a Soviet of God, and Hrrdnikkisch has wasted two hours postulating and destroying his own theorems—

"Really, Migg—" Hrrdnikkisch began. Migg waved his hand.

"Permit me," Migg continued malevolently, "to reduce this discussion to the kindergarten level. First things first, gentlemen. Before attempting to reach cosmic agreement we must make sure there is a cosmos left for us to agree upon. I refer to the impending war—

"Our program, as I see it, must be simple and direct. It is the education of a god or, if Johansen protests, of an angel. Fortunately Gaul is an estimable young man of kindly, honest disposition. I shudder to think what he might have done had he been inherently vicious."

"Or what he might do once he learns what he can do," muttered Bellanby.

"Precisely. We must begin a careful and rigorous ethical education of the boy, but we haven't enough time. We can't educate first, and then explain the truth when he's safe. We must forestall the war. We need a shortcut."

"All right," Johansen said. "What do you suggest?"

"Dazzlement," Migg spat. "Enchantment."

"Enchantment?" Hrrdnikkisch chuckled. "A new thienth, Migg?"

"Why do you think I selected you three of all people for this secret?" Migg snorted. "For your intellects? Nonsense! I can think you all under the table. No, I selected you, gentlemen, for your charm."

"It's an insult," Bellanby grinned, "and yet I'm flattered."

"Gaul is nineteen," Migg went on. "He is at the age when undergraduates are most susceptible to hero-worship. I want you gentlemen to charm him. You are not the first brains of the University, but you are the first heroes."

"I altho am inthulated and flattered," said Hrrdnikkisch.

"I want you to charm him, dazzle him, inspire him with affection and awe—as you've done with countless classes of undergraduates."

"Aha!" said Johansen. "The chocolate around the pill."

"Exactly. When he's enchanted, you will make him want to stop the war—and then tell him how he can stop it. That will give us breathing space to continue his education. By the time he outgrows his respect for you he will have a sound ethical foundation on which to build. He'll be safe."

"And you, Migg?" Bellanby inquired. "What part do you play?"

"Now? None," Migg snarled. "I have no charm, gentlemen. I come later. When he outgrows his respect

for you, he'll begin to acquire respect for me."

All of which was frightfully conceited but perfectly true.

And as events slowly marched toward the final crisis, Oddy Gaul was carefully and quickly enchanted. Bellanby invited him to the twenty-foot crystal globe atop his house—the famous spot to which only the favored few were invited. There, Oddy Gaul sun-bathed and admired the philosopher's magnificent iron-hard condition at seventy-three. Admiring Bellanby's muscles, it was only natural for him to admire Bellanby's ideas.

Meanwhile, Hrrdnikkisch took over Oddy's evenings. With the mathematician, who puffed and lisped like some flamboyant character out of Rabelais, Oddy was carried to the dizzy heights of the *haute cuisine* and the complete pagan life. Together they ate and drank incredible foods and liquids and pursued incredible women until Oddy returned to his room each night, intoxicated with the magic of the senses and the riotous color of the great Hrrdnikkisch's glittering ideas.

And occasionally—not too often—he would find Papa Johansen waiting for him, and then would come the long quiet talks through the small hours when young men search for the harmonics of life and the meaning of entity. And there was Johansen for Oddy to model himself after—a glowing embodiment of Spiritual Good—a living example of

Faith in God and Ethical Sanity.

The climax came on March 15th—The Ides of March—and they should have taken the date as a sign. After dinner with his three heroes at the Faculty Club, Oddy was ushered into the Foto-Library by the three great men where they were joined, quite casually, by Jesse Migg. There passed a few moments of uneasy tension until Migg made a sign, and Bellanby began:

"Oddy," he said, "have you ever had the fantasy that some day you might wake up and discover you were a king?"

Oddy blushed.

"I see you have. You know, every man has entertained that dream. The usual pattern is: You learn your parents only adopted you, and that you are actually and rightfully the King of . . . of—"

"Baratraria," said Hrrdnikkisch who had made a study of Stone Age fiction.

"Yes, sir," Oddy muttered. "I've had that dream."

"Well," Bellanby said quietly, "it's come true. You are a king."

Oddy stared while they explained and explained and explained. First, as a college boy, he was wary and suspicious of a joke. Then, as an idolator, he was almost persuaded by the men he most admired. And finally, as a human animal, he was swept away by the exaltation of security. Not power, not glory, not wealth thrilled him, but security alone. Later he might come to enjoy the trimmings, but now he was re-

leased from fear. He need never worry again.

"Yes," cried Oddy. "Yes, yes, yes! I understand. I understand what you want me to do.

"And I'm grateful," he said. "Grateful to all of you for what you've been trying to do. It would have been awful if I'd been selfish or mean—trying to use this for myself. But you've shown me the way. It's to be used for good. Always!"

Johansen nodded happily.

"I'll always listen to you," Oddy went on. "I don't want to make any mistakes. Ever!" He paused and blushed again. "That dream about being a king—I had that when I was a kid. But here at the school I've had something bigger. I used to wonder what would happen if I was the one man who could run the world. I used to dream about the kind things I'd do—

"But it isn't a dream any more. It's reality. I can do it. I can make it happen."

"Start with the war," Migg said sourly.

"Of course," said Oddy. "The war first; but then we'll go on from there, won't we? I'll make sure the war never starts, but then we'll do big things—great things! Just the five of us in private. Nobody'll know about us. We'll be ordinary people, but we'll make life wonderful for everybody. If I'm an angel . . . like you say . . . then I'll spread heaven around me as far as I can reach."

"But start with the war," Migg repeated.

"The war is the first disaster that must be averted, Oddy," Bellanby said. "If you don't want this disaster to happen, it will never happen."

"Yes," answered Oddy.

On March 20th, the war broke. The Comity of Nations and Der Realpolitik aus Terra mobilized and struck. While blow followed shattering counter-blow, Oddy Gaul was commissioned Subaltern in a Line regiment, but gazetted to Intelligence on May 3rd. On June 24th he was appointed A.D.C. to the Joint Forces Council meeting in the ruins of what had been Australia. On July 11th he was brevetted to command of the wrecked Space Force, being jumped one thousand seven hundred eighty-nine grades over regular officers. On September 19th he assumed supreme command in the Battle of the Parsec and won the victory that ended the disastrous solar annihilation called the Six Month War.

On September 23rd, Oddy Gaul made the astonishing peace offer that was accepted by the remnants of both Welfare States. It required the scrapping of antagonistic economic theories, and amounted to the virtual abandonment of all economic theory with an amalgamation of both States into a Solar Society. On January 1st, Oddy Gaul, by unanimous acclaim, was elected Solon of the Solar Society in perpetuity.

And today—still youthful, still vigorous, still handsome, still sincere, idealistic, charitable, kindly and sympathetic—he lives in the Solar Pal-

ace. He is unmarried but a mighty lover; uninhibited, but a charming host and devoted friend; democratic, but the feudal overlord of a bankrupt Family of Planets that suffers misgovernment, oppression, poverty and confusion with a cheerful joy that sings nothing but hosannas to the glory of Oddy Gaul.

In a last moment of clarity, Jesse Migg communicated his desolate summation of the situation to his friends in the Faculty Club. This was shortly before they made the trip to join Oddy in the palace as his confidential and valued advisors.

"We were fools," Migg said bitterly. "We should have killed him. He isn't an angel. He's a monster. Civilization, culture, philosophy and ethics—they were only masks Oddy put on; masks that covered the primitive impulses of his subconscious mind."

"You mean Oddy was not sincere?" Johansen asked heavily. "He wanted this wreckage . . . this ruin?"

"Certainly he was sincere—consciously. He still is. He thinks he desires nothing but the most good for the most men. He is honest, kind and generous—but only consciously.

"You understand, Signoid? I see you do. Gentlemen, we were imbeciles! We made the mistake of assuming that Oddy would have conscious control of his Power. He does not. The control was and still is below the thinking, reasoning level—and in many men, conscious desire

and subconscious desire do not correspond. They do not in Oddy.

"His subconscious mind wanted the war, Bellanby. It was the quickest route to what his subconscious mind desired—to be Lord of the Universe and Loved by the Universe. And his subconscious mind controls the Power. Oddy will always get not what he's educated to desire, but what that lower level mind desires. It's the inescapable conflict that may be the doom of our system.

"And he'll listen to our advice like the good child that he is," Migg snarled. "Agreeing with us; trying to make a heaven for everybody while the subconscious part of him will be making a hell for everybody. Oddy isn't unique. Many men suffer from the same conflict—but Oddy has the Power."

"What can we do?" Johansen groaned. "What can we do?"

"I don't know." Migg bit his lip, then bobbed his head to Papa Johansen in what amounted to apology for him. "Johansen," he said, "you were right. There must be a God, if only because there must be an opposite to Oddy Gaul who was most assuredly invented by the Devil!"

But that was Jesse Migg's last sane statement. Now, of course, he adores Gaul the Glorious, Gaul the Gauleiter, Gaul the God Eternal who has achieved the savage, selfish satisfaction for which many of us yearn from birth, but which only Oddy Gaul has won.

THE END

BOOK REVIEWS

"Waldo and Magic, Inc.," by Robert A. Heinlein. New York: Doubleday, 1950. 219 pp. \$2.50.

Here are two short novels by Old Master Heinlein, the first of which appeared in this magazine about a decade ago and the second of which was published about the same time in *Unknown Worlds*. "Waldo" is science fiction, about: an unexplained and rapidly worsening inability of the inhabitants of this highly mechanized world to operate their airplanes and other equipment without accidents; a theory of another plane of existence; and a fat, and difficult genius who suffers from a functional disorder that makes him extremely weak in his muscles, and who therefore lives in a gravityless Earth-satellite vehicle.

"Magic, Inc." is straight fantasy. It assumes our modern industrialized world wherein much of the commerce and industry are operated by the rediscovered laws of magic.

Readers of Heinlein are familiar with his prodigality of invention, his shrewd grasp of human nature and relationships, and his versatile knowledge of law, politics, business, and science—virtues which appear in full measure in the present stories. These stories, like all of his, are fast-moving, though occasionally, as in "Waldo," they tend to peter out at the end instead of rising to a climax.

Highly recommended.

L. Sprague de Camp

"Pebble In The Sky," by Isaac Asimov. New York: Doubleday & Co., Inc., 1950, 223 pp., \$2.50.

Asimov's first hard-cover science-fiction novel—not previously published—is a welcome relief after a year in which a vast number of sf stinkers have been brought out as books with much tra-la—many of them stinkers even by the tolerant standards of the '30s when they originally appeared on pulp paper. "Pebble" is excellent; one of the few really mature and professional jobs available in book form out of the dozens afloat on the market.

The story starts in present-day Chicago when an accident in a nuclear research laboratory knocks an innocent bystander—Joseph Schwartz, retired tailor—into the remote future, where he can't understand what is said to him and where he is deemed a dangerous monstrosity. He finds a world ruled by ironclad Custom, and a cosmos wherein humanity inhabits all the habitable planets of the Galaxy, but wherein the people of Earth are a despised race of outcasts because their planet is so radioactive that people of other worlds fear to visit it without lead suits.

Because so little of its soil is usable, Earth is run by a dictatorial Council

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of Ancients who, to stretch the planet's meager resources, subject all but a favored few to euthanasia at sixty. Now Dr. Bel Arvandan, an archeologist from Outside, is coming to Earth to test his heterodox theory that all mankind is descended from the hated Earthies; and the Ancients, embittered by their treatment by the rest of the Galaxy, have prepared a dreadful revenge . . .

Dr. Asimov's characterization is good, his suspense almost unbearable, and his handling of the theme of group prejudice is masterful—unsentimental but displaying a powerful grasp of how the human mind actually works. Highly recommended.

L. Sprague de Camp

"Red Planet: A Colonial Boy On Mars,"
by Robert A. Heinlein. Charles Scribner's Sons, New York, 1949. 211 pp. Ill. \$2.50.

In the current deluge of comic-book treatments of science fiction themes it is good to see Robert Heinlein, singlehanded, initiating a new generation of young Americans into the tradition of good modern science fiction. His first juvenile novel, "Rocket Ship Galileo"—now being filmed—introduced his young readers to the fundamentals of rocket flight and to the Moon. "Space Cadet" took them to Venus and established the theme of the interplanetary patrol. "Red Planet," latest in the series, is laid on Mars in the period when colonists from Earth

are first asserting their right to autonomy.

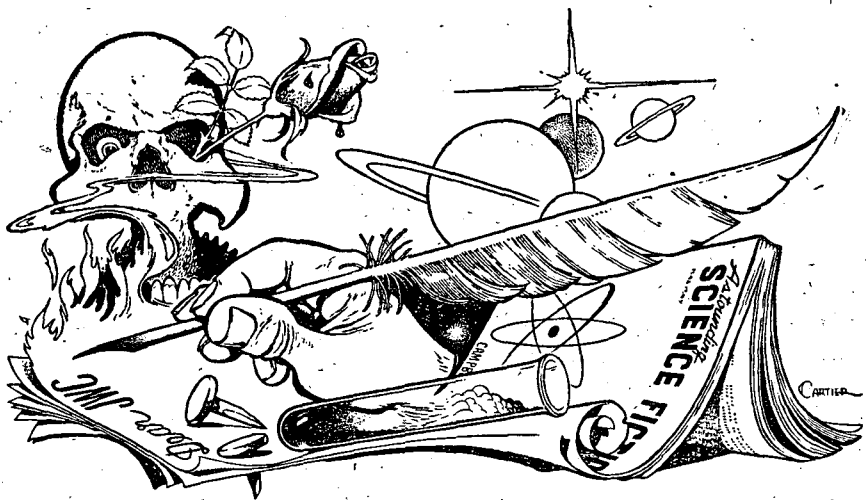
"Red Planet" has all the verisimilitude, the attention to detail, which Heinlein's adult readers know well. It is in the Verne tradition of making clear the scientific background of the strange conditions it shows, but the explanations are never dragged in for their own sake, and the plot grows naturally out of the setting.

The heroes of the book are teenagers in the Southern Colony at the oasis of Charax—our nomenclature—on the point of entering the Lowell Academy at the Syrtis Minor, the advanced school maintained by the development company which controls the planet. Third of their triumvirate is "Willis," a Martian "roundhead" like a furry basketball who is in many ways the most important character in the book. Their clash with an autocratic headmaster, their adventures with the native Martians, and the crisis as the colonists revolt against a Company plan to end their annual migration to the warm hemisphere, provide the framework which the author fills in with convincing detail.

The new book will appeal to, a younger audience than "Space Cadet" but should also be of interest to adult readers.

At one time, with slight changes, this story would have been at home in any science fiction magazine. That it is now published as a juvenile is evidence of the degree to which science fiction has matured in our time.

P. Schuyler Miller



BRASS TACKS

Editor's Note on Brass Tacks:

We encounter a bit of a problem. Most of the letters this month were, of course, concerned with dianetics. Since some two thousand of them arrived during the first two weeks, nearly all going to Hermitage House ordering the book, it is a little difficult to present a sampling. Some 0.2% were unfavorable; to be a true sampling, I would have to run one of those and some five hundred of the others—which is slightly impractical. And it is impossible for us to answer many of the questioning letters, because of sheer volume. Therefore Hubbard, and Arthur Ceppos of Hermitage House, are answering in the only possible way—herewith. And I regret, but with a two thousand letter Brass Tacks, the problem becomes impossible! THE EDITOR.

Dear Mr. Campbell:

I read L. Ron Hubbard's article "Dianetics" with great interest, and have placed an order for his book.

Hubbard briefly mentioned Political Dianetics, Industrial Dianetics and other potential divisions of this new mental science. As a student teacher of United States History I am interested in the ramifications of Educational Dianetics.

For a time I majored in psychology and soon came to regard its present state as very provisional and incomplete; something like that of medicine during the Middle Ages. (The professionalization in this field—Ph. D. requirements for clinical psychologists, and the like—is no proof of its scientific nature. Medieval students had to carefully study the Four Humors and other errone-

ous doctrines before receiving their degrees.) Hence this new approach in psychology has stirred my interest and hopes.

For the last two years, while taking my required teacher-training courses, I have come to believe that the present methods of education are inefficient even when fortified with stiff doses of audio-visual technique. We—generally speaking—are crammed with all sorts of technical knowledge and psychological principles and practices. But our mental capacities remain essentially unchanged. We can't remember all the data pumped into us or convert our psychological lore into brilliant practice. In short, our mental level remains at about ten to twenty percent of total capacity. Library reference skills, refresher courses, private libraries of texts and audio-visual aids are indifferent substitutes for full mental utilization. If Dianetics can increase utilization of our mental capacities, it will do more for education than all the other techniques before mentioned.

Here are several important questions that need clarification in terms of Educational Dianetics:

- a) How is a perfect mental computer to be reconciled with the maturing process during childhood and adolescence?
- b) If the computer and memory banks are perfect when not blocked by "demon circuits," how account for differences in innate ability? Is an idiot a potential genius, held back only

by unusually vicious demon circuits? (I doubt this.)

- c) How is Dianetics to be applied to the actual teaching process, as in history or algebra?
- d) How does the perfect computer arbitrate the conflicting emotional and physiological needs of adolescents?

Perhaps the book will answer some of these questions. I hope to be able to use them in my life and work.—Wallace Liggett, 1865 Euclid Avenue, Berkeley 9, California.

Hubbard was forced to devote all available time to development of dianetic therapy, then to the problem of teaching dianetic therapy. Teaching methods had to be worked out. The many fields of educational, political, child, et cetera, dianetics remain to be researched. Answering questions above: a. The perfect computer needs data to work with. That takes time for accumulation. b. "Innate" means "born-in"; dianetics does NOT imply there are no genetic differences. There are vast differences in genetically determined IQ, drive, et cetera. c. Excellent question. When we've had time for research, we will have answers. d. It has to arbitrate—find the optimum, not necessarily an ideal, solution. There are some insoluble problems, you know.

Dear Mr. Campbell:

Some notes on the Dianetics article:

1. It was interesting.

2. Psychoanalysis defines a neurotic as one who suppresses more into the subconscious, the library of painful incidents—the reactive mind—than the average person does. It is inevitable and beneficial that some things be suppressed. Psychoanalysis endeavors to relieve the mind of warped and unnecessary ones. Evidently Dianetics does that job quicker. But Mr. Hubbard has not properly *observed*, as he rightly feels so necessary, psychoanalysis. If he had, he would see the ancestors of his reactive mind in the subconscious. Psychoanalysis's conception is not as detailed, as it lumps all the stored memories with the unpleasant ones, but the broad strokes are there.

3. Mr. Hubbard seems to accent physical pain as the prime repression. It is the emotional upsets, stemming from the major drives, our basic needs, that most frequently cause trouble. Yet I rather doubt the percentage of *physical* ills with emotional cause is much higher than 70%, if that. (Was the bubonic plague just mass hysteria?)

4. To define an aberee as one whose analyzer does not function properly is to say that, by adult standards, every child is aberrated. I think this is true. A child's brain is not even complete until he is three years old, and his analyzer is only beginning to be used. (Like everything else an analyzer needs to develop and sharpen with practice). This explains why you cannot force a child to behave as a miniature

adult, to control his drives in a socially acceptable pattern. It is an extremely slow process, as a child begins life with his emotions and drives running wild.

5. Mr. Hubbard will find, as he studies his new science, that the human machine is indeed perfect, but its operator is NOT. Dianetics can make you stable, but not happy; friendly, but not loving; adjusted, but not immortal.

6. None the less, Mr. Hubbard has made an immense contribution to the world—a real blessing to many millions of mental patients, criminals—and to everyone.—Phyllisann Courtis (Mrs. R. P.), 531 Meadow Lane, Falls Church, Virginia.

1. *Wait till you've tried it—then you'll know what "interesting" really means!*

2. *The Ptolmaic Theory of planetary motions, like the Copernican Theory, agreed that there were planets, and they did appear to move. The broad strokes were there, too.*

3. *Hubbard finds that painful emotion is painful only because there is real physical pain somewhere earlier that is restimulated by the situation which contains "painful emotion." And dianetics is the "theory of NON-germ diseases"; we don't cure broken legs, appendicitis, or other actual infection.*

4. *A child that acted like an adult would be as aberrated as an adult that acts like a child. But a*

sane child isn't psychopathically shy, for instance, nor maliciously destructive.

5. Mr. Hubbard has, indeed, found that the operator of the perfect machine is not perfect—until the engrams are removed. Have you had any experience, yourself, with a dianetic clear?

6. We agree on that point!

Dear Mr. Campbell:

We would like to express through your columns our appreciation of your readers' response to dianetics.

Although no major advertising or publicity campaign has been entered upon by our firm at this date, "Dianetics: The Modern Science Of Mental Health: Handbook Of Therapy" is selling at the rate of about one thousand copies per day. We have been receiving from one hundred and fifty to three hundred and fifty orders a day, cash in advance, from the readers of Astounding SCIENCE FICTION alone.

We have been pleasantly amazed at the quality of the letters received by us from your readers. There is a preponderance of professional men within your readership obviously. About five percent of the orders we have received because of your magazine have been from medical doctors. A much higher percentage has been from engineers and college professors.

It is hoped that your readers will excuse us the delay in forwarding copies in response to orders. The author is partially responsible for

this delay for he worked until the very last moment to make certain that every scrap of information about dianetics which would be of use was included in the handbook and that no major problem of therapy was left uncovered. Even so, this has been a record time of publication from the moment of receipt of the manuscript to the finished product.

We are sorry about the conflict of prices, our advertisement stating \$4.00 and the footnote on the article stating \$3.00. Four dollars is the correct price. American Book-Company is amazed that we have set the price at this figure for, in their opinion, the book is worth \$10.00. The publication has been issued at the minimum figure possible. All author royalties, as you know, are being given to the Dianetic Foundation and the entire proceeds of our leather bound edition of one hundred copies at \$25.00 are also being given to the foundation in order to help dianetics.

Our general and national publicity on dianetics will begin shortly. In the interim, your reader response has been magnificent. We have been considerably impressed by the intelligence of the letters we have received and by the persons of those readers who called personally at our offices to reserve a book.—Arthur Ceppos, President, Hermitage House, One Madison Avenue, New York City.

That delay was caused by the addition of nearly fifty thousand additional words of material—which

more than explains the \$1 increase in price!

Dear Readers:

I would like to express my deep appreciation for the magnificent response given to the article: "Dianetics: The Evolution Of A Science."

Over two thousand letters arrived in the offices of this magazine and Hermitage House in New York, the publishers of the handbook. As the letters are still arriving, as this is written, at the rate of more than two hundred per day, I cannot say with accuracy what the total response will be. Less than fifteen of these letters were adversely critical and only three were thoroughly "agin" dianetics; in that one of the three was from a young gentleman who was on the verge of receiving his master's degree in psychology, the bitterness of the letter is easy to understand and one is rather moved to feel sympathy with the writer. A score of two thousand in favor to three against rather tends to swallow up the opposition and to carry out a principle I have often noted, that the wild protests against dianetics forecast by some of its supporters fails to materialize as soon as an accurate knowledge of it is communicated.

The publication of the article seems to have saved several lives. And it has gained very considerable report for the new science. Over fifty medical doctors and psychiatrists wrote letters couched in terms

of high approval. Not one single individual whose profession was intimately connected with mental work and who was experienced with it found fault with dianetics; indeed, it seems that those who best understand through professional work the problems of the mind are those who most readily grasp and accept dianetics. The role call of professionals intensely interested in dianetics now contains some of the most prominent authorities on the mind in the United States.

The enthusiasm of response has been most gratifying. Dianetics seems to have taken off like several V-2 rockets in a bundle but, we hope, with a more constructive purpose.

It would be quite beyond me as a matter of sheer labor to answer the many queries on specific points which were contained in some of the letters. No point advanced in any of these letters is not covered in the handbook. The article was, of necessity, brief and sketchy in spots. In the 180,000 words of the handbook adequate coverage is given to all points. Of course some of the letters were answered because they had an emergency status. Example: I am contemplating suicide, can dianetics help me? Example: I have for some time considered the commission of a murder, what can dianetics do for me that will make it unnecessary? Example: My baby is about to be born, what can I do to make the birth easier? Dianetics can help in each case, certainly.

One reader commented that while

the article changed things for him radically, buses still ran and *Time* had not mentioned it. Actually *Time* will shortly devote space to dianetics as has *Pathfinder*. This magazine, Astounding SCIENCE FICTION, got what the newspapermen call a "beat." Few national publications, in the next few months, will not carry stories on dianetics, space having been arranged for by them in the past two months. No national publicity beyond a science item in *Pathfinder* and the article in Astounding has been released as of this writing.

Several readers seemed to be interested in how dianetics stood in relationship to God and the Infinite Mind. Some assumed that it proved Man's spirituality, some assumed that it disproved it. Dianetics is in the same position as physics in relation to God and the Infinite Mind. While it may make a clear view of this problem possible, it does not in any way pretend to either deny a man a soul or to endow him with one. Whatever my personal opinions are on this matter have no place in dianetics for dianetics does not depend upon opinion, neither mine nor the opinion of some authority on religion or mysticism. Dianetics is constructed to be used and to be used by anyone in any frame of reference. It should not become a bone of contention as to what it proves or disproves in fields which it is not trying to enter.

A general query, contained both in the letters and conversations I have had lately with various readers

of this magazine, has to do with how one overcomes opposition to dianetics on the part of one's friends. Evidently many individuals have attempted to communicate dianetics to others who, knowing nothing about it, have simply refused to receive any knowledge of it, primarily on the grounds that the problem of the human mind is terribly complicated and cannot be solved and that, therefore, it is of no use to listen to any possible solution.

Apropos of this matter, let us take the case of a writer for this magazine who, ten months ago, elected himself a violent opponent of dianetics. No release of its tenets had been made and he knew nothing whatever about it. But he was opposed to it. Four months later he engaged in violent argument with a medical doctor who was supporting dianetics. Four months after that he was savage in his denouncement of dianetics. But in mid-flight the isolated datum came home to him that a ringing in the ears was a psychosomatic condition. Immediately he stopped resistance long enough to ask what would cause the three-thousand cycle note. He was told that it was possibly a quinine abortion attempt with his mother saying "It just won't stop. My ears go on ringing and ringing and ringing until I'm almost crazy." A few hours after that he was on the phone begging for some data about dianetic therapy. In short, opposition generally comes from a complete ignorance of the subject and an unwilling-

ingness to inspect it. Further, opposition to dianetics breaks down instantly when the opposer realizes that he himself, personally, has a stake in it. After that the opposition vanishes.

Some of the auditors here have developed a method of "selling dianetics" which they term "showing yard goods." They do not try to sell it at all but if a person is interested they will answer his questions. Dianetics actually doesn't have to be sold. The psychology professor who was reported by one reader to have used his entire hour in scathing denunciation of that "trash" knew nothing about dianetics, had made no tests, had read no data or axioms and was generally uninformed about the subject. If that professor were to qualify as a scientist, he would have to lay aside such extreme emotionalism, for science is a matter of facts, not of opinions. The reader reporting it, evidently one of the students, was rendered extremely curious as to just what direction that professor's aberrations were taking him. Nevertheless, if the man were to be given data on dianetics and persuaded into a cool survey of them, it is certain that his attitude would alter for dianetics shapes up in the form of laboratory tests as prettily as you please and is, indeed, the experimental system the psychologist needed in order to qualify himself as an exact scientist and to render him immune from the brickbats which are continually being pitched at him by the physical scien-

tist; dianetics places the psychologist in a very firm position for he can prove that what he is working upon has great value and has, additionally, precision in its results. Using dianetics, the psychologist is safe from such a bombast as he was given in the recent book, "Science Is A Sacred Cow." Dianetics is on his side. If he or anyone else wants to attack it, that's a God-given right; if anyone wants to use it or needs it, he will see it.

Almost all opposition to dianetics comes from ignorance of it and folds up—except when one is dealing with a truly moronic mind or a psychotic—the moment the details and evidences of the science are surveyed.

It is to be remembered, too, that many individuals have a stake in past methods and theories relating to the mind and that such individuals see in dianetics an economic threat or a threat to personal prestige. One must be able to appreciate and understand this. Usually the size of the stake and the damage dianetics will do to somebody's pay check are both fantasies. Personally I have met very few such people but when I have in a few days or a few months they have responded favorably. Remember that some minds are not as swift in grasping things as others, and that some minds are so engrossed in personal prestige and economics that they do not see benefit in anything which will not serve these fixations.

The very best method of convincing anyone about dianetics is to let him ease down his own time track

and discover a few things. In other words, give him what we call a "short run" in therapy. It can't hurt him. It usually predisposes him to a pleased wonder about this new horizon and even enthusiastic participation in dianetics.

Above all, don't worry about whether people accept dianetics or not. A majority opinion does not necessarily establish the truth of anything; for instance, the fact that the enlightened of Shakespeare's time may have believed in ghosts did not prove that ghosts existed. Individual opinion is valid only after observation of something. If a man won't observe, forget him.

A strange thing is happening and will continue to happen. There is a direct ratio between the brilliance of a mind and its ability to understand and work dianetics—we have proven that continually; a person highly successful, for instance, in the field of psychoanalysis can be counted upon to grasp dianetics quickly—the second rater, whose practice is unsuccessful, whose security is already small, may have difficulty in understanding dianetics and even be savage about it. Out of this comes whatever we do or might wish to do to prevent it, an aristocracy of the mind. People who are bright and have a high dynamic, understanding and undergoing "clearing," will become brighter and will have a higher dynamic. There will be many of these. But they will have to carry, on their own energy, so to speak, those that they wish to benefit. Below this will be

the persons whose insanity or criminality has made them a menace to society and who will be given a *release* in dianetics at state cost and those persons who have money enough to buy a release or a clear—expensive when not done in teams as no good professional practitioner would work for less than \$15.00 an hour and usually charge more. On a lower strata there will be those who, for various reasons, do not undertake clearing and for whom no clearing is done. A wide gulf is thereby established. On the adage that them as has gits, one sees with some sadness that more than three quarters of the world's population will become subject to the remaining quarter as a natural consequence and about which we can do exactly nothing. The saving part of this is that the good will of the upper quarter will inhibit their exploitation of the less fortunate.

So if your friend or relative turns his back on dianetics and refuses to inspect it even after you have done your best to explain it, don't be disheartened. That you see it and can use it has not injured him in any way. The loss is definitely his, not yours.

A further word. Many of you will have the book at the time you read this. I call your attention to the fact that so long as you use standard technique without diluting it with hypnosis or drugs or some preconception, you are utterly and entirely safe, your patient is safe and nothing whatever can happen that will injure

anyone. A long, long series of experiments has demonstrated this. Any case is better opened than left closed, even when the author is entirely unskilled. So feel no apprehensions about what you might do or what is being done to you, just keep following the rules as closely as you can.

We are opening an institute for training professional auditors because so many psychiatrists and psychoanalysts and medical doctors have expressed a desire for special training. Probably institutes will be opened in various parts of the country as soon as we get around to it. A foundation has been formed for the control of such institutes—and the proceeds of the handbook, by the way, have been given, in their entirety to the foundation—and it is only a question of time before one will be in your neighborhood if all goes well. However, this should not inhibit your practicing as per the handbook in any way nor even practicing professionally if you will.

Please accept my thanks, again, for your blazing reception of dianetics, for your compliments and congratulations. They amply reward a score of years of hard labor.—
L. Ron Hubbard.

It takes a long time to read two thousand letters; Hubbard and I cannot answer them all. It's physically impossible. To the experimental psychologists, I would like to add one point: psychology holds normality and insanity differ in

degree, not in kind. Then all data on human behavior so far collected must be considered unreliable, since it is necessarily data on how man-with-aberrations behaves, not data on how man-himself behaves. It is like the data a chemist might report on behavior of a compound containing varying amounts of varying and unknown impurities. The chemist's first task is to free his material of impurities; only then can he collect valid data.

Dear Mr. Campbell:

This is, truly astounding, Dianetics!

One sunny afternoon at seven thousand feet in the flak-shredded air over Dieppe, I looked over my left shoulder across two hundred yards of open space and watched the dancing devils of flame spurt from the leading edge of the wings of an FW-190, knowing that each flash might well be my last impression in this life as I busied myself with the mechanics of getting out of the line of fire in my little Spitfire.

And on another sunny morning in French Morocco, I "drove" my P-39 over the brow of a low hill at roughly three hundred miles per hour and dipped its nose to find an unmapped hi-tension line directly in my path, to feel the hot breath of Hell in the shock and flash that followed, and to wonder—seriously—if I had lived through the experience, even as I did so.

I've weaved and dodged the

vicious, impersonal black bursts of anti-aircraft fire over France and the Channel, trying not to guess when or whether the lads on the earth below would load the shell with "my number" on it.

I've flown my P-400 over thirteen hundred miles of open ocean from England to Africa—seven hours and a quarter strapped in a seat midway between heaven and a cold and watery interment, knowing that the odds on my reaching Port Lyautey were considerably less than even.

I have explored the middle and upper reaches of the notorious Casbah of Algiers in the hours between midnight and four a.m., armed, of course, but accompanied by two men in allied uniforms and a "French" civilian all of whom were unknown

to me as late as eleven-thirty that same evening.

I watched the dust and debris rise to fifteen thousand feet or more over the little island of Pantelleria under the terrible power of salvoed bombs from massed B-17's.

I've made at least five hundred landings in Fighter aircraft of one kind or another, each one a separate little problem in survival.

And I could go on and on and on, but shall belabor you no further. My point is that I have some reason to believe that I have had at least my share of experience of and of opportunity to plumb the depths and explore the heights of feeling attainable by earthlings.

But nothing I have ever done, read, heard, seen, felt or sensed in

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any way has affected me as profoundly as this material on Dianetics. For the very first time, I find myself justified in the use of words like awesome, electrifying, earth-shaking, etc.

If this new word does indeed represent a new Science—as you and your writers have described it—then your name along with Hubbard's belongs to History.

By the same token, if this be hoax, I wouldn't be in your shoes for all the green and gold extant.

Dianetics. I am suspicious. I don't believe it could be as described. I'll have to see it work, but who wouldn't *want* to believe in it? None but the meanest, most callous and least worthy of men could offer such a blessing to mankind without assuring himself of the validity of the method beyond any reasonable doubt before releasing the information.

I hope you know what you are doing!—Harry J. Robb, 625 Ray Avenue, N. W., New Philadelphia, Ohio.

It is no hoax. It will be history.

Dear Mr. Campbell:

I want to thank you for referring my husband to a dianetics auditor when he called you last month. As you will remember, I was hospitalized at that time with a psychosomatic illness for which I had been receiving just about the best medical and psychiatric care available over an extended period of time. With it all, my condition grew progressively worse; until, finally, at the time

when we learned of dianetics, the disease process was uncontrolled.

After four hours of dianetic therapy, the debilitating disease process had stopped. I was discharged from the hospital very shortly thereafter. At the present time, I have a sense of physical and mental well-being surpassing anything I have ever before experienced; and, as a consequence, I am in the process of becoming a dianetics auditor myself.

Thanks again for your help.—G. M.

A number of readers have asked why so important a discovery as dianetics was first published in this basically nontechnical and nonprofessional journal. The above letter is a partial explanation. The professional journals would normally take two to four years of cautious experimentation and consideration, particularly when material so revolutionary was involved. Since the doctors had stated that the above patient had three to four weeks to live at the time dianetics was started in the case, publication of the material two to four years hence would have been of no help whatever. The publication of the article now has, thus, saved a considerable number of lives—and a considerable number of minds from prefrontal lobotomy and the like.

In emergencies, in life-and-death matters, it is sound sense to take emergency measures. In the

case of dianetics, that meant immediate, if unconventional, mediums of communication.

Dear John:

There have been so many inquiries coming in since the publication of the article on Dianetics that it's impossible to answer them all. Perhaps you would be so kind, therefore, as to publish this letter in Brass Tacks, with the understanding that it's addressed to all those who have had their questions unanswered.

Those of us who are interested in Dianetics feel that this knowledge should be disseminated as widely as possible. There's only one way to do it—to train as many dianetic auditors as possible, so that they may help others and, in so doing, corre-

late this new body of knowledge with pre-existing data. There is a tremendous amount of research work which will have to be done; as I see it, almost every bit of medical data will have to be re-examined in the light of Dianetics. Then, too, we hope that some bright boys will be able to get some information on the structural aspects of the function-process of survival.

Priority Number One goes to dissemination. By keeping our eyes on that goal we shall be able to do the greatest good to the greatest number in the shortest length of time. The needs of the individual—and believe me, that includes those of us now connected with Dianetics—will have to be made subservient to this goal.

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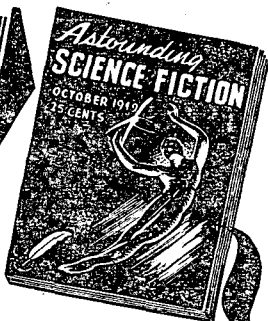
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If there are any further inquiries, address them to the Hubbard Dianetics Research Foundation, Inc. at Box 502, Elizabeth, New Jersey, and we'll try to answer each one.—
J. A. Winter, M. D.

Dr. Winter is slightly overloaded at the moment. Give us a little time, please!

Dear John:

You might be interested in the background of this story, "A Pinch of Culture." We may have to flee the wrath of women, but I'll be anxious to read the letters, too. To many readers it'll be soothing to read of women getting slapped at least once—in spite of it's being spring.

Ruth Benedict in "Patterns of Culture" describes the Dobuian culture, that found on Dobu Island off the southern coast of New Guinea: A part of the Melanesian group which includes the Trobriands, is in terrific contrast to the Zuni. The Dobus are poor; population excess presses on them and they are a chronically hungry people. The reputation is that they are noted for their dangerousness. They are said to be powerful magicians, sorcerers and treacherous warriors. Not so long ago they were cannibals in an area where many of the people eat no human flesh. They are feared, distrusted savages in all the islands surrounding them. They amply deserve the reputation their neighbors have given them for they are lawless and treacherous and every man's hand is against every other man. They have

no smooth organization and acknowledge no chiefs, and they put a premium on ill will, yet they do not live in anarchy. They recognize treachery as one of the outstanding virtues of their society. Witchcraft and sorcery are used freely and are the causes of disasters. Obviously they will not tolerate strangers. After the father's death—and this is most interesting—the children cannot approach their father's village, and marriage crystallizes further hostility for it is a forced status and the husband works for his wife's family as well as for himself; in spite of which he remains a perpetual outsider; faithfulness is not expected, anticipated, nor desired. A faithful wife would lose caste. Viciousness is common and adultery is a favorite pastime. Ownership is characterized by marked exclusiveness and violence. Therefore jealousy and suspicion would mark their marriages. The Dobuian has the simplicity of a mania and all existence is cutthroat competition with no holds barred, for they are secretive, suspicious, hostile and treacherous. Theft, double-dealing, cheating are all considered good social values. Their conventions of death reflect a terrible antagonism between husband and wife, the male and female Dobu conventions exclude laughter and to be dour is a virtue. Treachery is an ethical ideal without any mercy or kindness.

Nice people—for a story!—Bernard I. Kahn.

Not only individuals, but whole cultures can be insane!

(Continued from Page 4)

ling's article suggests a very direct reason; the *two types of mind are essential to survival*. There has to be the two sharply different types of mind in an organism that is to survive.

An animal that has to be injured many times before learning danger won't survive; but slow-learning is essential in the development of thinking. The only solution to such a problem would be the installation of two different types of control mechanism. One type will have to be an instant-learner, a mechanism that learns the first time, and learns infallibly, while the other will be a thinking mechanism that learns slowly. The simplest possible type of setup imaginable would be something like this:

When confronted with serious danger, the thinking mechanism works out, hurriedly, a possible solu-

tion, and throws it into action. Simultaneously, a recording mechanism—picture it mechanistically as a punched-tape, device that makes an automatic sequence control tape-recording—permanently records the entire sequence of events. If the solution hastily worked out by the thinking mechanism is successful, the organism—and its punched-tape recording—survives. Evidently, the punched-tape mechanism will, then, have only successful survival solutions on record. They may not be good solutions, but they worked at least once. Perhaps they aren't the optimum—but it's something, anyhow.

The thinking mechanism will not learn that solution the first time; confronted by the same danger again, the thinking mechanism would have to resolve the problem of survival. Consider a monkey who has been attacked and clawed by a lion,

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but escaped by climbing a tree. The first time, he had to think of an escape. The next time the sight-sound-smell stimulus of lion shows up, the sensory perceptions will automatically restimulate the sight-sound-smell index punchings on that punched-tape of "How To Survive When Attacked By Lions"; the high-speed, quick-action punched tape goes into action right then—and the monkey's halfway up the nearest tree by the time the infinitely finer, but slower, thinking mechanism gets into gear.

Once it is realized that a perfect thinking mechanism *has* to be a slow learner, the absolute necessity for a separate, quick-learned mechanism is obvious. The quickest possible type of quick-learner would, evidently, be a recording mechanism capable of replaying survival data. But a quick-learner by its nature will be nonintelligent, and will act on the basic proposition that the recorded solution it has on hand is *the*, and *the only* solution. It, unlike a slow-learner thinking mechanism, is incapable of altering its solution; it doesn't think, it records. It, unlike the thinking mechanism, is *subject to frustration* when its recorded "only solution" cannot be put into action.

Such a setup of two mind mechanisms would fit beautifully into Hubbard's concept of the "reactive mind" and the "analytical mind." And it would explain *why* there had to be two separate minds in conflict in order for an organism to survive.

It also explains why unconsciousness and pain are the critical factors in engrams. Evidently the recorder-mechanism's solutions will have higher priority when they represent solutions to problems of maximum urgency. Presumably there's a recorded solution for the problem of how to open an egg without breaking the yolk; it won't have much priority value—won't be able to overrule the analytical mechanism. But there is also a recording, we'll say, of what to do knocked down and chewed by a savage dog at age two. This recording contains intense pain, deep unconsciousness—a close approximation of death. This data has Grade A Crash Priority—this, the recording insists, is the solution for a problem of absolute maximum urgency, a problem involving severe damage to the organism, a close approach to death—unconsciousness—in the presence of violent antagonism.

The recorded "solution" may be extremely stupid—but it carries the Grade A Crash Priority tabs that give it power to overrule and cut out the thinking mechanism at any later time when a similar situation arises.

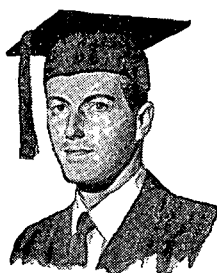
To me, at least, it seems that J. J. Coupling's three rules for the perfect thinking mechanism lead directly, for the first time, to a clear, logical understanding of the long-observed fact that Man has two mind-levels, and that one of them is stupid, and capable of being frustrated.

THE EDITOR.

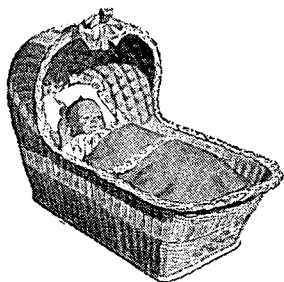
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